Feasibility Study of Low-Income Working Family Subsidy

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Introduction

The purpose of this study is to test the feasibility of a tax credit system to alleviate the situation of the working poor in Hong Kong. The study critically reviews the existing welfare system, summarizes prominent tax credit models in various developed countries, constructs various tax credit models for Hong Kong, estimates their impacts on work incentives and poverty reduction, and proposes sources of financing for the implementation of a tax credit system.

With the enactment and implementation of the minimum wage ordinance, our working poor campaign is coming to a new phase. This study is expected to contribute to the next stage of our campaign work. Oxfam Hong Kong first introduced the tax credit concept in our Poverty Report of Hong Kong 2007, but no follow-up study has been done since then. Though some academics and groups like HKCSS have voiced support for the idea, no detailed proposal has been made. We believe this original study can provide a new solution, in addition to the minimum wage, to alleviate the situation of the working poor in Hong Kong and potentially help garner support from local economists for the pro-poor tax reform campaign.

Oxfam HK is committed to reducing poverty among the employed in Hong Kong. In May 2011, an hourly minimum wage of HK$28 was implemented. Though the minimum wage has somewhat increased the household income of the working poor, it is estimated that the wage increase is not sufficient to satisfy the basic needs of families and free them from deprivation. Worse, if employers remove paid meal breaks and rest days from employees' contracts, the monthly salaries of grassroots workers paid the minimum wage will not increase by much and in some cases may even be reduced.

In addition, there are certain shortcomings to the Comprehensive Social Security Allowance scheme, which is not able to provide adequate assistance to working poor families. According to our studies, first, the CSSA scheme stigmatizes welfare recipients, discouraging the needy from applying for the allowance. Second, it hardly increases the work incentive for welfare recipients because of a flawed "disregarded earnings" system. Third, the take-up rate of CSSA for the working poor is low. Only 12% of the working poor with household incomes below the average CSSA payment receive CSSA support.

To supplement the Comprehensive Social Security Allowance, in 2010/2011 the government proposed a Community Care Fund as a second safety-net measure designed to engage the business sector in the task of poverty alleviation. However, the business sector has shown little willingness to donate to this matching fund. Worse, the proposed measures are only one-off, which cannot support poor families in the long run. Some measures (e.g. rental allowance) still target only CSSA recipients.

As a consequence of the low minimum wage and the shortcomings of the CSSA scheme and Community Care Fund, it is necessary to explore supplementary protection policies to alleviate

poverty among the families of low-income workers.

This report includes the following: Chapter 1 evaluates existing welfare for the families of low-income workers; Chapter 2 introduces three types of tax credit schemes being implemented in six countries or regions, namely the United States, Canada, Britain, New Zealand, Ireland and Macao. Chapter 3 discusses an equivalence scale and introduces the way to measure Hong Kong's at-risk population. Chapter 4 assesses the at-risk households and persons in Hong Kong. Chapter 5 evaluates the financial implications and possible consequences of implementing an Earned Income Tax Credit Scheme for the working poor in Hong Kong. Chapter 6 evaluates the financial implications and possible consequences of implementing reformed Transport and Living Subsidy schemes for the working poor. Chapter 7 discusses public financing for a proposed low-paid work subsidy. The concluding chapter discusses Oxfam's recommendations.

Chapter 1. Existing Welfare for Low-income Families

This chapter introduces numerous policies designed to help low-income working families. It includes the minimum wage ordinance, the Work Incentive Transport Subsidy scheme (WITS), the Comprehensive Social Security Allowance (CSSA) scheme, and various forms of financial assistance for primary and/or secondary school students. We will first evaluate the impacts of the minimum wage, then the WITS and CSSA schemes. We will examine the forms of financial assistance available to primary and/or secondary school students from low-income families. Finally, we will examine whether existing welfare measures are sufficient to support the families of low-income workers, particularly those with children.

1. Minimum Wage Ordinance

1.1. Evaluation of Minimum Wage Impacts

1.1.1 A statutory minimum wage went into effect on 1 May 2011; the hourly wage was set at HK$28 per hour. This measure was aimed at protecting the interests of low-paid workers by providing a wage floor to avoid excessively low wages.

1.1.2. The impact of the minimum wage on poverty reduction can be gauged by comparing the number of poor working households in the third quarter of 2010 with those in the third quarter of 2011. In order to control other economic factors which may confound the impact of minimum wage, we use the 2010 figure serving as a baseline against which to compute the change in the number of working poor households after the implementation of the minimum wage.

1.1.3. Our analysis shows that the minimum wage raised the salaries of low-wage earners, but the salary increase diminished for the second and third deciles of the low-income groups most likely to benefit from the implementation of the minimum wage. In the lowest 10%, the average wage rose by 17.2%. In the second decile, with salaries between HK$5,500 and HK$7,500, the average wage grew by 9.3%. For the decile with salaries ranging from HK$7,500 to HK$8,500, the average wage grew by 6.6%. (See Table 1)

1.1.4. If inflation is considered, average salaries grew less or even declined. According to the Census & Statistics Department, the year-on-year change in the consumer price index (A) at Q3, 2011, was 7.7. After adjusting for inflation, average wage growth rates at Q3, 2011 were 9.5%, 1.6% and -1.1% for the first, second and third deciles of salary groups (See Table 1).

Table 1: Estimated Growth Rate of Average Salary by 1st, 2nd and 3rd Deciles of Employed Persons

Salary Group		Min	Max	Mean	% change of average wage before adjusting for inflation	% change of average wage after adjusting for inflation
1st	Q3 2010	0	5500	2668.25		
	Q3 2011	0	6500	3126.13	17.2	9.5%
2nd	Q3 2010	5500	7500	6533.86		
	Q3 2011	6500	7500	7142.32	9.3	1.6%
3rd	Q3 2010	7500	8500	7961.98		
	Q3 2011	7500	9500	8486.49	6.6	-1.1%

Note: Q3 2010: Quarter 3 2010; Q3 2011: Quarter 3 2011
Source of Error: Our estimates are based on the range of incomes in Q3, 2010 and Q3, 2011.

1.1.5. As for its effects on poverty reduction, since the statutory minimum wage increased the income of low-paid employees, it has lifted 28.0% of low-income workers' households out of poverty, and 28.5% of the people in these households out of poverty. (See Table 2).

1.1.6. The poverty rate among employed workers' families in Quarter 3, 2010 was 9.2%. After the implementation of the minimum wage, this rate dropped to 6.5% in Quarter 3, 2011. Thus 163,200 persons were lifted out of poverty (See Table 2).

Table 2: Change in Working Families and Change in the Number of People in Working Families with Household Incomes less than 50% of the Median Household Income for Families of Corresponding Size, and Working Poverty Rates, between Q3, 2010 and Q3, 2011

Time Period	Total number of working families	Number of working families with household income <50% of median household income for families of corresponding size	Working Poverty Rate
Q3, 2010	1,880,300	173,700	9.2%
Q3, 2011	1,922,600	125,000	6.5%
	% change	28.0%	
Time Period	Total number of people in working families	Number of people in working families with household income <50% of median household income for families of corresponding size	
Q3, 2010	5,786,400	570,700	
Q3, 2011	5,870,100	407,500	
	% change	-28.5%	

Sources: General Household Survey, Q3, 2010 and Q3, 2011. Census and Statistics Department.
Note: i. Poor employed families are defined as those with at least one working member and with household income of <50% of the equivalized median household income of households of a corresponding size. The equivalence scale is created according to the 2009/2010 Household Expenditure Survey and the Rebasing of the Consumer Price Indices, Census and Statistics Department.
ii. Q3 2010: Quarter 3rd 2010; Q3 2011: Quarter 3rd 2011

1.1.7. The number of employed persons in poor families dropped by 29.7% in Quarter 3, 2011. That is, 58,200 poor employees were raised out of poverty. Among them, 17,500 were employed in elementary occupations. Thus, the number of poor persons in elementary occupations dropped by 24.2%, largely because of the implementation of the minimum wage. (Table 3)

Table 3: Change in the Number of Employed Persons in Families with Household Income Less than 50% of Median Income for Households of Corresponding Size between Quarter 3, 2010 and Quarter 3, 2011

	Time Period	Total no. of employed persons	No. of employed persons with household income < 50% of median income for households of corresponding size
All Occupations	Q3, 2010	3198300	195900
	Q3, 2011	3311800	137700
	% change		-29.7%
Elementary Occupation	Q3, 2010	430300	72200
	Q3, 2011	449300	54700
		% change	-24.2%

Source: General Household Survey, Q3, 2010 and Q3, 2011. Census and Statistics Department.
Note. Q3 2010: Quarter 3, 2010; Q3 2011: Quarter 3, 2011

1.1.7. In addition, about two out of 10 low-income workers' households with child(ren) were lifted out of poverty after the implementation of the minimum wage. The rate of low-income workers' households with children decreased by 2.9%, representing about 17,000 poor households with child(ren). (See Table 4). The number of children living in poor working families dropped by 26.3%. (See Table 5)

Table 4: Change in the Number of Working Families with Children with Household Income less than 50% of Median Household Income between Quarter 3, 2010 and Quarter 3, 2011

Time Period	Total number of working families with child(ren)	Number of working families with child(ren) with household income <50% of median household income	Rate
Q3, 2010	562,700	72,900	12.9%
Q3, 2011	556,700	55,900	10.0%
	Difference	17,000	
	% change	-23%	

Source: General Household Survey, Q3, 2010 and Q3, 2011. Census and Statistics Department.
Note. i. Poor employed families are defined as those with at least one working member and with household income <50% of median income for households of corresponding size.
ii. Q3 2010: Quarter 3, 2010; Q3 2011: Quarter 3, 2011

Table 5: Change in the Number of Children Living in Households with Income less than 50% of Median Income for Households of Corresponding Size between Quarter 3, 2010 and Quarter 3, 2011.

Time Period	Total number of children living in working families	Number of children with household income <50% of median household income	Rate
Q3, 2010	770,500	112,200	14.6%
Q3, 2011	759,500	82,700	10.9%
	Difference	29,500	
	% change	-26.3%	

Source: General Household Survey, Q3, 2010 and Q3, 2011. Census and Statistics Department.
Note: Q3 2010: Quarter 3, 2010; Q3 2011: Quarter 3, 2011

1.1.7. Although the minimum wage has had a positive effect on poverty reduction, 71% of low-income workers' families, or 407,500 persons, remain trapped in poverty. Among these, 44.7% are families with child(ren) (See Table 2). Out of 137,700 poor employees in Quarter 3, 2011, 96,200 were employed in elementary occupations, as plant and machine operators, or in service work/shop sales (Table 3).

1.1.8. Our latest study, "Before and After the Statutory Minimum Wage Ordinance in Hong Kong: Survey of Low-income Workers and their Families", found that 59.5% of these families reported no overall improvement in their lives after the introduction of the Ordinance. Only 28.3% said there was slight improvement and 4.3% said there was great improvement. Worse, about 40% of low-income workers and their families continued to live in deprivation in the sense that they lack three or more essential items due to economic difficulties.

1.1.9. Therefore, other measures such as the Work Incentive Transport Subsidy scheme (WITS) are needed to reduce the financial hardship of such families and lift them out of poverty.

2. Work Incentive Transport Subsidy
2.1. The Objectives of the Scheme
The second programme that targets low-income workers' families is the Work Incentive Transport Subsidy scheme. The Hong Kong Special Administrative Region Government introduced the WITS after reviewing the Transport Support Scheme[1] in 2010. It was recognised that transportation expenses for commuting to and from the workplace take up a significant proportion of a worker's income. The Government therefore transformed the time- and geographically specific scheme into the ongoing and territory-wide Work Incentive Transport Subsidy Scheme (WITS). WITS aims to assist employed members of low-income families with their commuting expenses.

2.2. Income and Assets Limits
2.2.1. Unlike the earlier Transport Support Scheme, the means tests for the WITS are on a household basis. The Government argued that a household-based means test is more equitable than an individual-based one, because the family forms the basic unit of society and therefore the economic situation of the whole household should be taken into consideration. Members of a household are expected to support each other financially.

2.2.2. The initial income limit for WITS was designed by the Government before the implementation of

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1 The Transport Support Scheme served residents of Yuen Long, Tuen Mun, North District and Islands District (demarcated in accordance with the District Council electoral boundaries). The subsidy could only be claimed for up to 12 months at most. (http://www.tss.labour.gov.hk/gui_eng/faq.html#4c)

the minimum wage, and on the basis of the General Household Survey in 2010 the income thresholds were HK$6,500 for a one-person household, HK$12,000 for a two-person household, and HK$13,000 for a three-person household. As the Government stresses the sharing of resources in a household, the income limit means that the more members a household has, the more stringent the limit will be. For example, the income limit for a one-person household is almost the same as the median household income for a household of corresponding size in the Second Quarter of 2010[2], while the limit for a five-person household accounts for 60% of the median of a household of corresponding size.

2.2.3. The assets limit for WITS was designed with reference to the Comprehensive Social Security Allowance (CSSA) Scheme. Assets are defined as having the potential to be changed into income, such as bank deposits, savings, stocks, funds, the current value of insurance plans and of properties owned but not lived in. The WITS assets limits for different sizes of households are only twice more than the corresponding limits for CSSA.

2.2.4. The Government recognized that the application rate for WITS was very low, and adjusted the income limits and asset limits in March 2012 in order to increase the number of eligible recipients. The revised income limit for one person slightly exceeds the median household income of one-person households. The income limit for two-person households is equal to 84% of median household income of two-person households. The income limit for other sizes of households amounts to 60% or higher of the median income for households of corresponding size. Similarly, the asset limits were adjusted to three times the asset limits for CSSA. (See Table 2.1)

Table 2.1: Adjusted Income and Assets Limits under Work Incentive Transport Subsidy Scheme

Household Size (Number of Persons)	Original Income Limit	Original Asset Limit	Adjusted Income Limit (HK$)	Adjusted Asset Limit (HK$)	Income limit as a percentage of median household income of Q4 2011 (%)*	Ratio between assets limits of CSSA and WITS
1	6,500	44,000	7,300	72,000	101.4	1: 3
2	12,000	60,000	13,400	99,000	84.3	1: 3
3	13,000	90,000	14,800	148,500	65.2	1: 3
4	14,000	120,000	16,400	198,000	60.1	1: 3
5	14,500	150,000	16,700	198,000	60.7	1: 3
6 or more	16,000	180,000	18,600	198,000	60.0	1: 3

Sources: The Labour Department; Census and Statistics Department
Note: As the revised income limit was designed with reference to the 4th Quarter General Household Income Statistics Report (2011), the median household home of 4th Quarter 2011 was used to compare the income limits of different household sizes.

Policy Improvements Needed

2.3. Narrow Objective of the Scheme

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2 Legislative Council Panel on Manpower: Work Incentive Transport Subsidy Scheme, 16 December, 2010

The apparent objective of the WITS is inconsistent with its design. Though the WITS specifically focuses on work-related transportation expenses, its eligibility criteria and subsidy levels do not consider the transportation need of individuals, or the distance they must commute. Instead, the design is like a low-income family subsidy because eligibility is based on the economic situation of a household. Yet the objective of the WITS is not broad enough to provide sufficient subsidies to meet the living expenses of low-income families.

2.4. Incentives to Work

The WITS does not provide strong incentives for low-income earners to work, partly because the current eligibility criteria are based on a family's economic condition rather than an individual's. If a worker fails the means test he or she cannot obtain the allowance, so it does not serve as an incentive to continue employment or to work longer hours. Furthermore, the system is only two-tiered with regard to working hours. Under the WITS, employees that work 36 hours per month are entitled to HK$300 per month. Those who work 72 hours or more per month are entitled to HK$600 per month. This system does not provide enough incentive to encourage employees to increase their working hours.

2.5. Exceeding Income Limit after the Implementation of Minimum Wage

The implementation of the minimum wage raised the salaries of low-income employees, making them more likely to exceed the WITS income limit. According to the Wage and Payroll Statistics Quarterly Report in 2011, the average monthly income of workers in the lowest-paid occupations increased by at least 9.5% between the first and third quarters of 2011 (See Table 2.2). The monthly salary of a washroom cleaner, for example, increased by 20% in this period, from HK$5,600 to HK$6,769. These statistics reveal that a worker in a one-person household would easily exceed the original WITS income limit.

In fact, even before the implementation of the minimum wage, the income of some low-wage workers such as cleaners and security guards exceeded the original WITS income limit for a one-person household. This suggests that the income limit was set too low from the start. According to the Labour and Welfare Bureau, as of 30 December 2011 (several months after the implementation of the minimum wage), only 21,000 applications for the WITS had been filed, and only 10,000 applications (with approximately 10,947 applicants) had been granted the subsidy[3]. The number of applications was far lower than the 218,000[4] anticipated by the Government. In fact, only about 5% of eligible workers are receiving this support.

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[3] According to the minutes of a Legislative Council Meeting on 30 November 2011, the Labour and Welfare Bureau disclosed that from 1 October until 29 November 2011, the Labour Department had received 19,393 applications, with 21,230 applicants. That is, the ratio of applications to applicants is 1: 1.09.
[4] Before the implementation of WITS in October 2011, the Government estimated that 436,000 people would be eligible and that 218,000 people would actually apply. Please refer to the minutes of the Legislative Council Meeting on 17 February 2011.
(http://www.legco.gov.hk/yr10-11/english/panels/mp/papers/mp0217cb2-1070-1-e.pdf.)

Table 2.2: Average Monthly Salary of Lowest-wage Occupations, First and Third Quarters, 2011

Industry Type/Occupation	Average Monthly Salary, 2011 (HK$)		Change in Income from 1st to 3rd Quarter 2011 (%)
	1st Quarter	3rd Quarter	
Cleaning Services			
Washroom Cleaner	5,633	6,759	20.0
General Cleaner	5,890	6,718	14.1
Service Worker	6,598	7,593	15.1
Security Services			
Security Guard (general)	7,893	8,899	12.7
Two-shift Security Guard (12hr)	7,778	9,021	16.0
Three-shift Security Guard (8hr)	6,949	7611	9.5

Source: First and Third Quarters Reports of Wage and Payroll Statistics, 2011.

2.6. Complicated Application Procedures and Stringent Assets Test

Income and assets tests make the application procedure for WITS complicated and thus discourage many eligible workers from applying. In principle, the means tests are employed to identify needy families and screen out the less needy. However, in practice, the tests require not only the applicant but also his/her family members to disclose a wide variety of assets and income. Also, applicants must submit proof of salary and monthly working hours. Thus many eligible applicants, particularly those who are self-employed or work for several employers, find it difficult to collect enough information for the WITS application.

Furthermore, the assets limit is perceived as stringent. According to a survey conducted by Caritas in 2010[5], 73% of interviewees indicated that the individual asset limit should be relaxed, and about 60% suggested that the one-person asset limit should be increased from HK$44,000 to HK$150,000 or above. Should the asset limit not be further relaxed, the test will hinder the Government from rewarding many hardworking low-wage earners.

2.7. Internal Policy Inconsistency: Not Assisting Households with Children

The WITS is internally inconsistent when the Government considers it justifiable to consider the economic situation of a household, but fails to consider the expenses incurred in raising children in designing the WITS income limit. Currently, the design overlooks the fact that the economic burden of a family with children can be considerably higher than that of a family without children. Using the regression analysis model and the 2009/2010 Household Expenditure Survey of the Census and Statistics Department, we can estimate the increased household expenditure for an additional child

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[5] "Work-Related Transport Subsidy Scheme Survey". December 2010. Lai Chi Kok Labour Centre, under Caritas. The survey was only produced in Chinese.
(http://cd.caritas.org.hk/report/Rpt_Traffic_Allowance201012.pdf))

and an adult. Results show that each additional child aged under 15 increases average household expenditure by HK$5,328 a month, and each additional adult by HK$4,165 – a monthly difference of HK$1,163 (See Table 2.3). Whatever the household size, a household with children has a higher per-capita expenditure than a household without; and the more children a household has, the per-capita expenditure is higher still. Families with children also tend to have less ability and less flexibility to deploy resources in times of need.

Table 2.3: Results of the Regression Analysis

p-value < 0.0001			
Parameter Estimate	p-value	Parameter Estimate	p-value
A= 12,714	< 0.0001		
B= 4,165	< 0.0001	β'= 0.33	< 0.0001
Γ= 5,328	< 0.0001	γ'= 0.42	< 0.0001

Source: 2009/2010 Household Expenditure Survey and the Rebasing of the Consumer Price Indices, Census and Statistics Department
Note: Model：Household Expenditure ＝ α＋β (Additional Adult)＋γ (Additional Child, aged below 15)
α= One-person household expenditure
β= Additional expenditure due to an additional adult in the household
γ= Additional expenditure due to an additional child in the household
β'=Proportion of additional expenditure from an additional adult to one-person household expenditure
γ'=Proportion of additional expenditure from an additional child to one-person household expenditure

3. Comprehensive Social Security Scheme for Low-income Families

3.1 The Objective of the Scheme

3.1.1 The Comprehensive Social Security Allowance (CSSA) Scheme is another programme that provides financial assistance for needy individuals and families, including low-income workers' families, with an aim of meeting their basic needs.

3.1.2 For the category of low-earning CSSA recipients, the CSSA scheme allows some income to be "disregarded" when eligibility is determined. The purpose is to encourage people to find and retain employment. "Disregarded earnings" refers to a baseline income that is excluded in assessing the amount of assistance payable to a CSSA recipient.

3.2. Work Disincentive

3.2.1 Though the minimum wage has raised the income of low-paid workers and lifted 28.5% of people in low-income families out of poverty, 71.5% of low-income workers' family members remain trapped in poverty. CSSA is indeed an official safety net to allow them to maintain a basic standard of living. However, according to the Census and Statistics Department, in the first quarter of 2011, 119,000 low-income workers' families had a monthly income of less than the average CSSA payment for the corresponding household size, representing 63.4% of the total households of the working poor. However, a majority of these households, though most would qualify, are actually not on CSSA. During the same period, only 13,706 low-income households were on CSSA, representing just 12% of

households with at least one worker that are currently living below the CSSA standard. The low take-up rate is partly attributed to the long-established stigma attached to welfare recipients in Hong Kong, which discourages the working poor from applying for CSSA, according to the results of our CSSA Perception Surveys conducted in 2007 and 2009.

3.2.2 Nevertheless, the current system of "disregarded earnings" does not encourage CSSA recipients to work because the total amount of excluded income is low (a maximum of HK$2,500), with a high rate of diminishing CSSA allowance as income increases. The first HK$800 is disregarded when CSSA eligibility and payment levels are calculated. If the salary is higher than HK$800, 50% of the remaining salary will be disregarded until the salary reaches HK$4,200. When the salary exceeds HK$4,200, the additional salary leads to a reduction in CSSA of the same amount. As the largest group of low-income households receiving CSSA are three-member families, comprising about 29%[6], we can take this as an example. The average CSSA monthly payment for a three-person family is HK$9,035. When the employed member's salary increases from HK$5,000 to HK$6,000, the CSSA will correspondingly decrease by the same amount (HK$1,000). In other words, the implicit marginal tax rate is 100%. Under this situation, CSSA recipients do not have any incentive to work more if their salary reaches HK$4,200.

Table 3.1: Total Income Including CSSA among Different Salary Levels

Salary	Amount of CSSA for three-person family	Total Income
HK$800	HK$ 9,035	$9,835
HK$1500	HK$ 8,685	$10,185
HK$3400	HK$ 7,735	$11,135
HK $3800	HK$ 7,535	$11,335
HK$4200	HK$ 7,335	$11,535
HK$5000	HK$ 6,535	$11,535
HK$6000	HK$ 5,535	$11,535
HK$7000	HK$ 4,535	$11,535
HK$8000	HK$ 3,535	$11,535

Source: Comprehensive Social Security Allowance Scheme 2011

4. Various Financial Assistance Schemes for Primary and/or Secondary Students

4.1. The **School Textbook Assistance (TA) Scheme** provides assistance to needy Primary 1 to Secondary 6 students in government schools, aided schools, per-capita grant schools and local private schools under the Direct Subsidy Scheme, to cover the costs of essential textbooks and miscellaneous school-related expenses. The subsidy amounts differ for different grades of students. For primary students in first through sixth grade, the full grant is $3,110. For secondary students in year one to three, the full grant is $3,360. For senior secondary first- and second-year students, the full grants are $3,472 and $3,126. The grant drops significantly for secondary students in the sixth and seventh years, to $1,964 and $1,418 respectively.

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[6] Social Welfare Department, 2010-11

4.2. The **Subsidy Scheme for Internet Access Charges (SIA)** provides subsidies to needy families with children who are full-time students receiving education at primary or secondary level, or full-time students pursuing Project Yi Jin programmes or equivalent courses of the Vocational Training Council. It aims to cover Internet access charges for children's e-learning at home. The subsidy is granted on a household basis. Eligible families receive a flat-rate cash grant, regardless of the number of children in the family. The full-rate subsidy for Internet access in the 2011/12 school year was $1,300 per household, while a half-rate subsidy was $650 per household.

4.3. Apart from financial assistance for primary and secondary school students, the Community Care Fund also provides primary schools with lunch subsidies for students from needy families so that these students can have a more balanced and ample diet at school. Primary schools are eligible for this subsidy if their primary 1 to 6 students receive full grants under the Student Financial Assistance Scheme, study in whole-day government schools, aided schools (including special schools) and direct subsidy scheme primary schools, and have lunches arranged by their schools. According to the Boys' and Girls' Club Association of Hong Kong, a full-time student now buys lunch at school at an average price of $16 per day, or about HK$320 a month ($16 x 20 school days). As CCF pays the full price of these lunches to the schools, the full subsidy for each eligible student is HK$320 per month.

Policy Improvements Needed

4.4. Insufficient Financial Assistance for Children

According to our Household Expenditure Study in 2009/2010, the marginal cost of each additional child aged below 15 for low-income families is HK$2,087. (See Table 4.2) However the combined monthly financial assistance, including Financial Assistance for Secondary and Primary Students (HK$270), Subsidy Scheme for Internet Access Charges (HK$108) and School Lunch Subsidy for primary students (HK$320) amounts to HK$698 per month which is far lower than the monthly cost of additional child (See Table 4.3). Thus, those financial assistance are far from sufficient to assist low-income families in caring for and nurturing children.

Table 4.2: Results of the Regression Analysis: Marginal Cost of Child and Adult for the Households below 50% of median monthly household income of the corresponding household size

Model 3 (based on households below 50% of median monthly household income of the corresponding household size)			
p-value		< 0.0001	
Adjusted R-square		0.2125	
Parameter estimate	**p-value**	**Parameter estimate**	**p-value**
A= 5605	< 0.0001		
B= 2123	< 0.0001	β'= 0.38	< 0.0001
Γ= 2785	< 0.0001	γ'= 0.50	< 0.0001

Source: 2009/2010 Household Expenditure Survey and the Rebasing of the Consumer Price Indices, Census and Statistics Department
Note: Model：Household Expenditure ＝ α＋β (Additional Adult)＋γ (Additional Child, aged below 15)
α= One-person household expenditure
β= Additional expenditure due to an additional adult in the household
γ= Additional expenditure due to an additional child in the household

β'=Proportion of additional expenditure from an additional adult to one-person household expenditure
γ'=Proportion of additional expenditure from an additional child to one-person household expenditure

Table 4.3: Total Subsidy for Primary to Junior Secondary School Students

	Average Full Grant for Students in Primary 1 to Secondary 3 schools	Full Subsidy for Internet Access	Lunch Subsidy	Combined Subsidies	Remaining cost of additional child per month
Monthly Subsidy	HK$270	HK$108	HK$320	HK$698	=HK$2087 (HK$2785-HK$698)

Note:
i. The average full grant for those who study in Primary 1 to Secondary 3 schools is $3,235
ii. Full Subsidy for Internet Access Charge is HK$1,300.

4.5. Short-term Scheme with Limited Coverage under Community Care Fund

The school lunch subsidy under the Community Care Fund is a short-term programme tailored to the needs of primary school students. It does not help reduce the lunch costs of secondary school students from needy families. Thus it should be made into a regular programme with expanded coverage.

4.6. Concluding Remarks

1. After the implementation of the minimum wage, the salaries of low-paid workers were raised and 28.5% of people in low-income workers' families were lifted out of poverty. About two out of 10 poor workers' households with child(ren) were lifted out of poverty.

2. However, the growth rate of the average wage was reduced by rising inflation in Q3 2011. The growth rates for the first, second and third deciles of salary groups were 9.5%, 1.6% and -1.1%.

3. Among poor workers' families in Q3 2010, 71.5%, or 407,500 persons, remained trapped in poverty in Q3 2011; 44.7% of these families included at least one child.

4. WITS attempts to support low-income working families, but its objective is inconsistent with its design. Its eligibility criteria is based on the economic situation of a family rather than on the transportation expenses of an employed person. Its objective is not broad enough to cover the living expenses of low-income families, including the expenses of children.

5. WITS does not provide low-income earners with an incentive to remain employed or to increase their working hours, because of the low benefits related to additional hours of work. Besides, its income and assets tests make the application procedure cumbersome and thus discourage many eligible workers from applying.

6. CSSA provides financial support for very low-income workers' families and its "disregarded earnings" structure is designed to encourage recipients to remain employed. However, the amount of excluded income is very low, with a high marginal rate of diminishing allowance as income increases. So it fails to encourage recipients to find and continue employment.

7. There are various forms of financial assistance for secondary and/or primary students including the TA textbook assistance scheme, the SIA internet-access scheme, and the lunch subsidy under the Community Care Fund. However, these combined grants fall short of meeting the monthly

expenses of a child in a family.

8. Besides, the lunch subsidy does not provide long-term support for primary and secondary students who obtain full grants under the student financial assistance scheme.

9. Therefore, a long-term low-income worker's family subsidy, along with the minimum wage, is needed to reduce financial hardship among low-income workers' families and help lift them out of poverty.

Chapter 2   International Experiences with Tax Credits and In-Work Subsidy Schemes

In this chapter, we will analyze various tax credits and in-work subsidy schemes in several countries and regions including the United States, Canada, Britain, New Zealand and Macao. We will classify these tax credit schemes and in-work subsidy into three models according to their structural design and the unit of assessment. The first type of model is a family-based tax credit with three ranges of subsidies (ie. phase-in, plateau and phase-out). This model aims primarily to increase incentives to work and provide income support for low-income families. The Earned Income Tax Credit (EITC) in the United States and Working Income Tax Benefit (WITB) in Canada are examples. The second type is also a family-based tax credit with one or two levels of subsidies (i.e. plateau and/or phase-out). It primarily aims at alleviating poverty and reducing work disincentives for low-income families. The Working Tax Credit (WTC) and Child Tax Credit (CTC) in Britain, Working for Family Tax Credit (WFTC) in New Zealand and Family Income Supplement (FIS) in Ireland are examples. The third type is an individual-based wage subsidy with only one level. The example is Temporary Measures for the Supplementary Income in Macao.

Family-based tax credit is income-tested based on family income. It mainly targets poor workers' families and helps lift them out of poverty. Usually it provides a higher maximum tax credit for needy families. Some studies show that it discourages second earners in a family from working[7].

Individual-based tax credit is income-tested based on individual earnings. With a similar budget, this type of measure provides smaller benefits to larger numbers of recipients. It can benefit low-paid earners in relatively well-off families. It is supposed to have a greater incentive effect and no discouraging effect on second earners in a family.

In the following parts, we will introduce each scheme in terms of its objectives, eligibility criteria, design structure, income limits, participation rate, impacts on labour supply and participation, and poverty reduction outcomes.

A. Work Incentive Low-income Family Subsidy Model

1. EITC in United States
1.1. Objectives

- EITC is a refundable[8] income tax credit for low-wage workers and families.
- It encourages people to work and reduces poverty.

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[7] Bargain, Olivier and Kristian Orsini, 2004. In-Work Policies in Europe: Killing Two Birds with One Stone? The Institute for the Study of Labor.

[8] Refundable means that if the tax credit exceeds the tax the household would otherwise pay, then the government pays the household the difference.

1.2 Eligibility Criteria for EITC

- The eligible person or couple must meet all of the following rules:
1. Have a valid Social Security number
2. Be a U.S. citizen or resident alien all year or a nonresident alien married to a U.S. citizen and choose to file a joint return
3. Meet income limits
4. Have earned income from employment or self-employment and meet certain rules

- If a person does not have a qualifying child, he/she must meet additional rules:
1. Live in the U.S for more than half a year
2. Be at least 25, but less than 65, years of age
3. Not be qualified as a dependent of another person

1.2.1. Definition of Earned Income

- Only earned income will be assessed in the income test. Earned income includes the following:
1. Wages, salaries and tips
2. Union strike benefits
3. Long-term disability benefits received prior to minimum retirement age
4. Net earnings from self-employment. Ministers who receive a housing allowance from the church must count the allowance as taxable earned income

- Examples of income that is not considered "earned"
    1. Interest and dividends
    2. Pensions
    3. Social Security payments
    4. Unemployment benefits
    5. Alimony
    6. Child support

- There is no assets test. If a family's investment income (e.g. capital gains net income, royalties, rental income from personal property, interest from savings or dividends) exceeds $3,100, the family is ineligible for the EITC. (2011)

1.2.2. Criteria for Qualifying Children

- Applicants' children must meet the following tests to qualify:
1. Relationship test: a qualifying child is one who is the child or sibling of the taxpayer, or a

descendant of either a child or a sibling (including foster children)

2. Residency test: the child lives with the earner more than half the year; for foster children, the child must share the taxpayers' home for the entire year

3. Age test: the child is under 19 years of age, or under 24 if a full-time student or permanently and totally disabled

1.3. Structure of EITC

- The EITC has a ladder-like structure (See Chart 1). It consists of phase-in, plateau and phase-out ranges. The phase-in range indicates that as earnings increase, the tax credit increases. The phase-in rate for singles is 7.65%, much lower than the rates for families with one or more children, 34% and 40% respectively. In other words, EITC gives more benefits to families with children.

- The plateau range indicates that the tax credit has reached the maximum. Eligible people can receive this maximum amount until the household income reaches the threshold of the plateau. At the phase-out range, when household income exceeds the income threshold of the plateau range, the tax credit declines at a particular rate, depending on how many children tax filers have and on their filing status.

Table 1.1: EITC Parameters, Tax Year 2011

	Single, No Qualifying Children	Single, One Qualifying Child	Single, Two Qualifying Children	Single, Three or more Qualifying Children	Married, No Qualifying Children	Married, One Qualifying Child	Married, Two Qualifying Children	Married, Three or More Qualifying Children
Phase-In Rate	7.65% (1)	34%	40%	45%	7.65%	34%	40%	45%
Phase-In Ends	$6,050	$9,100	$12,750	$12,750	$6,050	$9,100	$12,750	$12,750
Maximum Tax Credit	$464	$3,094	$5,112	$5,751	$464	$3,094	$5,112	$5,751
Phase-Out Begins	$7,600	$16,700	$16,700	$16,700	$12,700	$21,800	$21,800	$21,800
Phase-Out Rate	7.65% (2)	15.98%	21.06%	21.06%	7.65%	15.98%	21.06%	21.06%
Eligibility Ceiling Phase-out Ends	$13,660	$36,052	$40,964	$43,998	$18,740	$41,132	$46,044	$49,078

Note: 1.The subsidy in the phase-in region is equivalent to a phase-in rate X household income. 2. The subsidy in the phase-out region is equivalent to a phase-out rate X household income.

Chart 1: The Structure of Earned Income Tax Credit, 2011
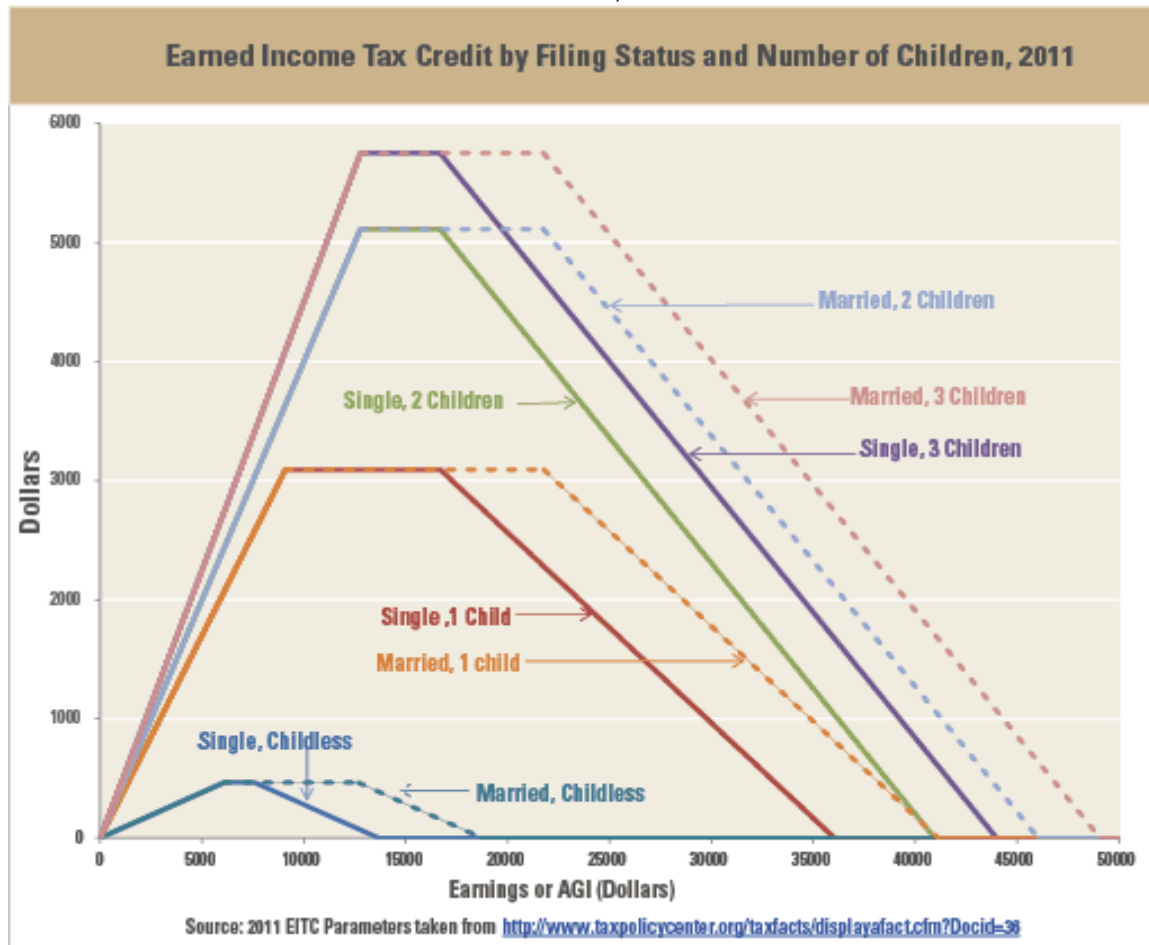
1.4. Maximum Tax Credit as % of Poverty Threshold

Table 1.2: Maximum Tax Credit as the Percentage of Poverty Threshold

	No Child (%)	One Child (%)	Two Children (%)	Three Children (%)
One Person	4.1			
Two People	3.2	20.6		
Three People		17.6	29.1	
Four People		13.5	23.1	25.9
Five People		11.2	19.2	22.1

Note: http://www.census.gov/compendia/statab/2012/tables/12s0692.xls
U.S. Poverty Thresholds are updated annually with reference to the Consumer Price Index

● Table 1.2. shows maximum tax credit as a percentage of the poverty threshold for different family sizes and different numbers of children. The maximum tax credit for a single person is very low, equivalent to 4.1% of the U.S. poverty threshold for singles.

● For a two-person household with one child, the maximum tax credit is equivalent to 20.6% of the poverty threshold. For a three-person household with one child, the maximum tax credit accounts for 17.6% of the poverty threshold. However, if two of the three people in a household are children, the maximum tax credit will increase to 29% of the poverty threshold. That is, given the

household size as a constant, if the number of children increases, the maximum tax credit as a percentage of the poverty threshold will increase.

1.5.   Income Limits as % of Median Household Income

● Table 1.2a shows gross adjusted income limits for EITC according to family size and number of children. The more children a family has, the higher the income limit for EITC eligibility. A four-person family with one child must have an annual income of less than $41,132 to be eligible for EITC.

Table 1.2a: Gross Adjusted Income Limit for Earned Income Tax Credit in 2011

	No Child ($)	One Child ($)	Two Children ($)	Three Children ($)
One Person	13,660.0			
Two People	18,740.0	41,132.0		
Three People		41,132.0	46,044.0	
Four People		41,132.0	46,044.0	49,078.0
Five People		41,132.0	46,044.0	49,078.0

Note: U.S Census Bureau

● Table 1.2b shows the adjusted gross income limit for EITC as a percentage of median household income. As the 2009 median household income is the most updated, it is used as a reference point. For singles, the EITC income limit is equivalent to about 52% of the median household income. For three-person families with one child, the income limit for EITC application is equivalent to 65.8% of the median household income. With two children, the income limit for the EITC application will increase to 73.7% of the median household income.

Table 1.2b: Adjusted Gross Income Limit as a Percentage of Median Household Income

	Median Household Income (2009) ($)	No Child	One Child	Two Children	Three Children
..One person	26,080	52.4			
..Two persons	53,676	34.9	76.6		
..Three persons	62,472		65.8	73.7	
..Four persons	73,071		56.3	63.0	67.2
..Five persons	69,680		59.0	66.1	70.4

Source: U.S Census Bureau
Note: Assume most families except one-person households file a tax return under married status. Adjusted gross income is used to determine the extent of a taxable income.
Median household income of different household sizes in 2009:
(http://www.census.gov/compendia/statab/2012/tables/12s0692.xls)

1.6. EITC Participation Rate

- In 2009, 27 million taxpayers applied for EITC[9]. This is equivalent to 19.2% of the total number of tax returns filed in 2009.

- Another study reports that between 75% and 85% of those eligible for the tax credit applied and received EITC[10] in 2004. The estimates are based on surveys from IRS data.

- Similarly, in 1999, 75% of eligible taxpayers applied for EITC. Eligible families with one or two children were the most likely to receive EITC. On the contrary, half of the eligible singles without children did not apply for the tax credit[11] because of the low benefit.

- Some groups that are qualified to receive EITC do not claim it. They tend to have one or more of the following characteristics:
  1. eligible for a small amount of credit/ no qualifying children
  2. larger family with two earners
  3. not wanting to be known to the IRS due to involvement in underground activities
  4. higher percentage of income from self-employment
  5. no high school diploma or college education
  6. no prior tax filing experience

1.7. Error Rate and Punishment

- Some taxpayers claim too high an EITC. According to a study by the U.S Treasury (2000)[12], the over-claim error rate was 30.6% and the overpayment rate was 25.6% in the tax year 1997. Some argue that such errors do not result from the refundable nature of EITC[13] because the over-claim rate among EITC claimants with no income tax who can receive the entire amount is one-third as high as the error rate among families with income tax liabilities who claim less EITC.

- In 2009, there were 460,684, or 4.4% of total tax returns, that included math errors[14]. This type of error might also be reflected in EITC claims.

- The main types of errors[15] included 1.) claiming a child who was not a qualifying child, 2.) claiming a qualifying child who was also the qualifying child of someone else with a higher Adjusted Gross Income (AGI), and 3.) filing as a single or head of household when the correct

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[9] "Selected Income and Tax Items for Tax Years, 1990-2009, in Current and Constant 1990 Dollars." Inland Revenue Service. United States (http://www.irs.gov/pub/irs-soi/09intba.xls)

[10] Use of Federal EITC by Eligible Taxpayers. (http://www.cga.ct.gov/2005/rpt/2005-R-0164.htm)

[11] Earned Income Tax Credit Participation (http://www.gao.gov/new.items/d02290r.pdf)

[12] Earned Income Tax Credit at Age 30: an Overview. http://www.brookings.edu/~/media/Files/rc/speeches/2006/0208childrenfamilies_berube/20060208_eitceu.pdf

[13] Hoffman, Saul D. and Laurence S. Seildman. 2003. Helping Working Families: the Earned Income Tax Credit. Kalamazoo: W. E. Upjohn Institute for Employment Research, p.149-150.

[14] Math Errors on Indivdiual Income Tax Returns, by Type of Error, Calendar Year 2010. (http://www.irs.gov/pub/irs-soi/10db15nm.xls)

[15] Hoffman, Saul D. and Laurence S. Seildman. 2003. Helping Working Families: the Earned Income Tax Credit. Kalamazoo: W. E. Upjohn Institute for Employment Research, p.150.

filing status was married filing separately[16].

- Other types of non-compliance: self-employed people with higher incomes can manipulate their income to meet the requirement.

- Since 2000, if taxpayers are found to have negligently claimed credit through reckless or intentional disregard of the regulations, taxpayers cannot be recertified for EITC for two years. If they are found to have committed fraud, they cannot be recertified for 10 years.

1.8. Expenditure of EITC

- The actual outlay of the EITC was about US$54.7 billion in 2011[17] (See Table 1.3).
- EITC payouts represented 0.3% of GDP in 2009 and 0.4% in 2010.

Table 1.3: The Expenditure of Earned Income Tax Credit as % of Real GDP in 2009 and 2010

	2009	2010
EITC (millions) (US$)	42,418	54,712
Real GDP in 2010 (millions) (US$)	12,703,100	13,088,000
EITC as % of Real GDP	0.3%	0.4%

Source: Total Outlay of Earned Income Tax Credit
(http://www.gpo.gov/fdsys/pkg/BUDGET-2012-TAB/pdf/BUDGET-2012-TAB.pdf)
Real GDP in 2010 (http://www.bea.gov/national/xls/gdplev.xls)

1.9. Advantages of EITC

- EITC reduces child poverty. According to the Centre of Budget and Policy Priorities[18], EITC lifted an estimated 6 million people out of poverty in 2009. Half of them were children. Another study shows that the percentage change in the poverty rate due to EITC is -14.2%[19].

- Families in the phase-in range have a higher incentive for increasing work hours because of the lower marginal tax burden.

- EITC can boost labour force participation among low-income single mothers. The 1987 expansion of EITC increased labour force participation among all single women with children by 2.8%, from 73.0% to 75.8% from 1984-1996[20]. Scholz (1996)[21] proved that the

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[16] The married filing separately status, which defines the taxpayer as responsible for his/her own tax, provides less credit.
[17] Fiscal Year 2012. Historical Table: Budget of the United States Government.
(http://www.gpo.gov/fdsys/pkg/BUDGET-2012-TAB/pdf/BUDGET-2012-TAB.pdf)
[18] http://www.cbpp.org/cms/index.cfm?fa=view&id=2505
[19] Simpson, Nicole B., Jill Tiefenthaler and Jameson Hyde. 2010. "The Impact of the Earned Income Tax Credit on Economic Well-Being: A Comparison across Household Types." *Population Research and Policy Review* 29:843-864.
[20] Eissa, N. and J. B. Liebman. 1996. *Labor Supply Response to the Earned Income Tax Credit*. Quarterly Journal of Economics V112:605-37.
[21] Scholz, John Karl. 1996. *In-work Benefits in the United States: the Earned Income Tax Credit*. The Economic

increase in net-of-tax wages after EITC expansion led to greater labour participation among single parents, and primary earners. Another study (Grogger 2003) also showed that EITC accounted for 33.5% of an increase in employment from 1993-1999. It confirms that EITC has a sizable effect on the employment of single mothers.

- EITC accounted for 15.8% of the decline in welfare use from 1993-1999[22].

1.10. Disadvantages of the EITC

- EITC tends to reduce the labour supply of second earners among married couples because tax credit subsidizes one parent to stay at home by supplementing wages[23]. If second earners increase their work hours and increase their household income, their tax credit will diminish. So EITC's effectiveness in increasing work hours worked is ambiguous.
- Families in the phase-out range have less incentive to work more hours because they face a higher marginal effective tax rate.[24]
- As the EITC system is intended as a means of government support, it does not take wealth into account in assessing the needs of benefit recipients
- EITC cannot make swift adjustments to meet the immediate needs of benefit recipients.
- It is difficult to check eligibility within the tax system.[25]

Journal 106: 156-169.

[22] Grogger, Jeffrey. 2003. *The Effects of Time Limits, The EITC, and Other Policy Changes on Welfare Use, Work, and Income Among Female-headed Families*. The Review of Economics and Statistics, 85:394-408.

[23] Eissa, N. and H. Hoynes. 2004. "Taxes and the Labor Market Participation of Married Couples: the Earned Income Tax Credit." Journal of Public Economics V88:1931-958.

[24] Floor M. Wan Oers, Ruud A. De MooIJ, Johan J. Graafland, and J. Boone. 2000. De Economist. 148, 19-43.

[25] Floor M. Wan Oers, Ruud A. De MooIJ, Johan J. Graafland, and J. Boone. 2000. De Economist. 148, 19-43.

2. Working Income Tax Benefit in Canada

The Working Income Tax Benefit (WITB) in Canada is structured in a similar way to the EITC in the United States. Both schemes have a phase-in, a plateau and a phase-out range. Different from the EITC, the WITB has a minimum income as a key eligibility criterion. Also, the WITB does not consider the number of children in determining the amount of credit.

2.1. Objectives

- In February 2007, the Government of Canada introduced the WITB as a refundable tax credit to provide tax relief for eligible working low-income individuals and families who are already in the workforce and to encourage other Canadians to enter the workforce.
- WITB has two major objectives:

  1. To reduce disincentives to work for Canadian recipients stuck behind the welfare wall[26]; it aims to lower the welfare wall by supplementing low earnings from employment to help "make work pay".
  2. To enhance incentives to employment among the working poor. It plays a role in increasing incentives for people to join the workforce, keep working and not have to fall into the tangled safety net of welfare.

2.2. Eligibility Criteria

- A person can receive WITB if he/she is:

  1. 19 years of age or older
  2. A resident of Canada throughout the year
  3. A single individual without dependants who earns CAD $3,000 to $17,004 per year, or a family (including couples with or without children, and single parents) that earns $3,000 to $26,218 per year

2.3. Definition of Working Income

- Working Income Includes:

  1. Employment income (including tips, gratuities, non-taxable income earned or a reserve, and emergency volunteer allowance)
  2. Net income from self-employment
  3. Taxable parts of scholarships and research grants

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[26] The term 'welfare wall' refers to the conundrum that some welfare recipients can end up worse off financially if they leave social assistance for the workforce

- There is no asset requirement

- Different from EITC, the WITB has a minimum income threshold, CAD $3,000 in 2011. If an employee fails to earn this threshold, he/she is disqualified from receiving WITB. WITB for single recipients phased in at the rate of 25% of employees earning over CAD $3,000. The maximum payment in 2011 was CAD $944 for a single individual, or CAD $1,714 for individuals with an eligible spouse or at least one eligible dependant. After a certain level of income, WITB will decline at the rate of 15% until the income reaches CAD $17,004 for an individual or CAD $26,218 for a family.

2.4. Structure of WITB

- WITB has a ladder-like structure. It has a phase-in, plateau and phase-out range. The phase-in rate for single individuals and families is 25%, while the phase-out rage is 15%. (See Table 2.1)

Table 2.1 Structure of WITB

	Single	Family
Minimum Salary (CAD)	3,000	3,000
Phase-in Rate	25%	25%
Maximum Benefit (CAD)	944	1714
Phase-in-range ends (CAD)	6,776	9,856
Phase-out-range starts (CAD)	10,711	14,791
Phase-out-range	15%	15%
Income Threshold (CAD)	17,004	26,218

Chart 2.1 WITB
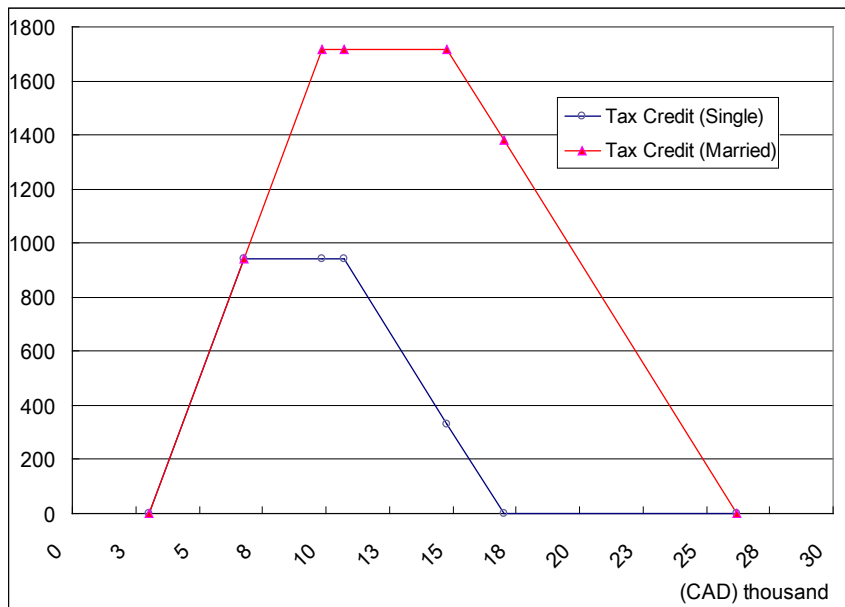
2.5. Maximum Tax Credit and Income Limit

● In Canada, the maximum tax credit is much lower than in other countries, equivalent to 2.1% and 2.5% of average market income for single male earners or single female earners respectively. For married couples with one or two earners, the maximum tax credit is low as well, equivalent to 2.8% and 1.8% of average market income respectively. (See Table 2.2)

Table 2.2: Maximum Tax Credit as a Percentage of Average Market Income in Canada, 2011

	Average Market Income (2009) (CAD)	Maximum Tax Credit (2011) (CAD)	Credit as % of Average Market Income
Single (Male earner)	44,300	944	2.1
Single (Female earner)	38,200	944	2.5
Married couple with children: one earner	61,200	1,714	2.8
Married couple with children: two earners	94,000	1,714	1.8
Single parent families	40,400	1,714	4.2

Sources: Statistics Canada. (http://www40.statcan.gc.ca/l01/cst01/famil22a-eng.htm); Canada Revenue Agency. (http://www.cra-arc.gc.ca/bnfts/wtb/menu-eng.html)
Note: i. Average market income is the sum of earnings (from employment and self-employment), investment income, (private) retirement income, and items under "Other income". It is equivalent to total income minus government subsidies.
ii. Maximum Tax Credit in 2011.

● Apart from single parent families, the income limit for WITB recipients is less than 50% of average market income for single persons with or without children, or for couples with or without children. (See Table 2.3)

Table 2.3: Income Limit of WITB as a Percentage of Average Market Income (2009)

	Average Market Income in (2009) (CAD)	Income Limit (2011) (CAD)	Income Limit as % of Average Market Income
Single (Male earner)	44300	17004	38.4
Single (Female earner)	38200	17004	44.5
Married couple with children: one earner	61200	26218	42.8
Married couple with children: two earners	94000	26218	27.9
Lone parent families	40400	26218	64.9

Source: Statistics Canada. (http://www40.statcan.gc.ca/l01/cst01/famil22a-eng.htm); Canada Revenue Agency. (http://www.cra-arc.gc.ca/bnfts/wtb/menu-eng.html)
Note: i. Average market income is the sum of earnings (from employment and self-employment), investment income, (private) retirement income, and items under "Other income". It is equivalent to total income minus government subsidies.
ii. Maximum Tax Credit in 2011

2.6. Advance Payments

- Eligible individuals and families have the option to apply for WITB advance payments of up to a maximum of 50% of the WITB refundable tax credit (including the disability supplement, if applicable) that would be claimed on the Income Tax and Benefit Return. WITB entitlements not received as advance payments are paid after the Income Tax and Benefit Return is assessed.

- After the application is processed, WITB advance payments will be divided by the number of payment dates left in the year and will be paid in equal installments on the remaining dates. The payment dates were April 5, July 5, October 5, 2011 and January 5, 2012**.**

2.7. Expenditure of WITB

- WITB, introduced in the Budget 2007 and enhanced in the Economic Action Plan, provided CAD $1.1 billion in benefits for low-income working Canadians in 2010. Its share was 1.6% of "Major Transfers to Persons"[27] in 2010, 0.44% of Federal Government expenditures in 2009 and 0.08% of real GDP in 2010 (See Table 2.4).

Table 2.4 WITB as a Percentage of GDP

	2007	2008	2009	2010
WITB ($millions) (CAD)	455	480	1,075	1,125
Major Transfers to Persons ($millions) (CAD)	N.A.	N.A.	61,586	68,579
WITB as % of Major Transfers to Persons	N.A.	N.A.	1.75	1.64
Federal Government Expenditure ($millions) (CAD)	229,597	246,583	242,867	N.A.
WITB as % of Federal Government Expenditure	0.20	0.19	0.44	N.A.
Real GDP($millions)	1,311,260	1,320,291	1,283,722	1,324,992
WITB as % of GDP	0.03	0.04	0.08	0.08

Sources: Tax Expenditures and Evaluations 2010
(http://www.fin.gc.ca/taxexp-depfisc/2010/taxexp10-eng.asp); Major Transfers to Persons: Annual Financial Report of the Government of Canada: Fiscal Year 2010-2011
(http://www.fin.gc.ca/afr-rfa/2011/report-rapport-eng.asp#toc305590999); Federal Government transfer payments to persons (http://www40.statcan.ca/l01/cst01/govt05a-eng.htm); Real GDP (http://www40.statcan.gc.ca/l01/cst01/econ05-eng.htm). Federal Government expenditure (http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=3850001&paSer=&pattern=&stB yVal=2&p1=-1&p2=37&tabMode=dataTable&csid=)
Note: Major Transfers to Persons include Elderly Benefits, Employment Insurance Benefits and Children's Benefits.

2.8. Evaluation

- WITB has been effectively doubled since 2007. The enhancement lowered the "welfare wall" by further strengthening work incentives for low-income Canadians already in the workforce and

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[27] http://www.fin.gc.ca/afr-rfa/2011/report-rapport-eng.asp#toc305590999

encouraging other low-income Canadians to enter the workforce. Canadians have been able to receive enhanced benefits since filing their 2009 tax returns[28].

3. Child Tax Credit and Working Tax Credit in Britain

Child Tax Credit (CTC) and Working Tax Credit (WTC) in Britain are family-based tax credit schemes. They are designed differently from the EITC in the United States and the WITB in Canada in that they have only a plateau and a phase-out range. Their structure reflects the policy objective of alleviating poverty rather than providing work incentives. The total expenditure of CTC and WTC accounts for a higher share of gross domestic product than tax credit schemes in other countries.

3.1. The Objectives

- In 2003, WTC and CTC replaced Working Families' Tax Credit and Disabled Persons' Credit which had been in place since 1999.
- The WTC was designed to improve work incentives for the working poor. It is a tool to tackle the unemployment trap and the poverty trap. The unemployment trap means that the difference between working and receiving welfare payments is too small to provide an incentive to work. The poverty trap means that low-income earners are discouraged from working longer hours or taking better jobs because this would reduce their welfare support, leaving them little better off.
- The CTC was introduced to reduce child poverty. It supports families with one or more children and reflects the British Government's recognition of the responsibilities of parenthood. It tackles child poverty by offering the greatest help to those most in need, such as low-income families.

3.2. The Elements and Structure of WTC and CTC

Table 3.1 Elements of Working and Child Tax Credits

	WTC	CTC
1	Basic element (one per single claimant or couple)	Family Element (one per family)
2	Couple elements (paid in addition to basic element)	Child Element (paid for each child)
3	Single parent (paid in addition to basic element)	Disabled Child Element (paid in addition to child element)
4	30-hour element (paid in addition to other elements but only one 30-hour element allowed per couple)	Severely Disabled Child Element (paid in addition to child element and disabled child element.)
5	Disabled worker element (paid in addition to other elements)	
6	Childcare elements (paid for either one child or two or more children)	

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[28] What has been done- Canada's Economic Action Plan
(http://www.actionplan.gc.ca/eng/feature.asp?featureId=4)

- WTC contains a number of elements to reflect differing individual circumstances (See Table 3.1):
1. A basic element paid to all those eligible for WTC
2. Single parents and couple elements, which recognize the additional needs of single parents and couples
3. A 30-hour element which provides incentives to increase hours towards full-time work
4. Other elements which recognize particular disadvantages in the labour market for people such as disabled workers and those over 50 years of age who are returning to work after a period out of the labour market
5. Childcare element which helps reduce the family cost of childcare. Childcare element is a part of working tax credit because it pays for the cost of childcare which the claimants incur by putting themselves into a position to work.

- The CTC comprises several elements, recognizing the circumstances of different families (See Table 3.1).
1. A family element paid to all eligible families in recognition of the responsibilities faced by families with children
2. A child element for each child within the family
3. Disabled child elements for families caring for a child with a disability or a severe disability

- Different from the EITC in the U.S., the WTC and CTC in the U.K have only a plateau and a phase-out range. This implies that the WTC and CTC attempt to encourage the unemployed to work, rather than encouraging them to increase their work hours.

- The award or tax benefit was reduced at the rate of 41% for every pound of gross income over the income threshold in 2011[29]. The second withdrawal rate was 41%.

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[29] A Guide to Child Tax Credit and Working Tax Credit. HM Revenue & Customs, p. 15.
(http://www.hmrc.gov.uk/leaflets/wtc2.pdf)

Chart 3.1 The Structure of In-work Child and Working Tax Credit

In-work Child and Working Tax Credit Entitlement
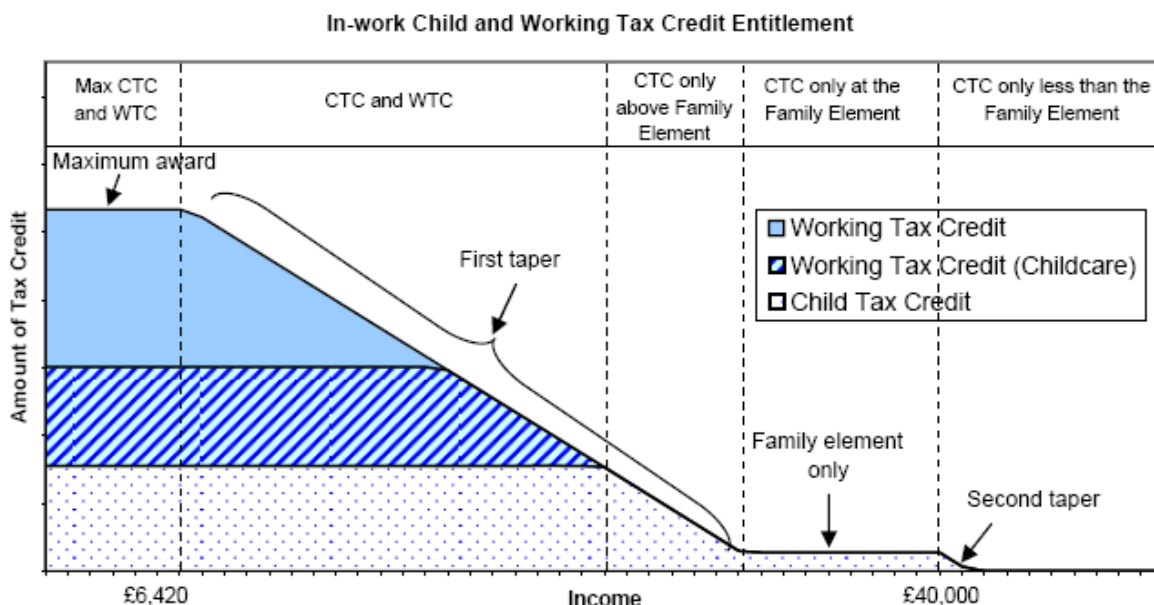
Source: Child and Working Tax Credit. December 2011
(http://www.hmrc.gov.uk/stats/personal-tax-credits/cwtc-dec2011.pdf).

3.3. Eligibility Rule for Working Tax Credit

● To qualify for WTC, a person who is employed or self-employed usually must work at least 30 hours per week, for at least four weeks. However, the minimum number of working hours varies with age and health status. For instance, a person who works at least 16 hours per week is eligible for the WTC if he/she is:

   1. Aged 16 or over and responsible for at least one child
   2. Aged 16 or over and disabled
   3. Aged 50 or over, and has been unemployed and in receipt of benefits for six months leading up to the claim
   4. Aged 60 or over

● A couple can receive WTC if both work at least 16 hours per week.[30] Couples must make a joint tax credit claim. If one is part of a couple, one cannot claim as a single person.

● The minimum income threshold is equivalent to 30 hours or 16 hours times the national minimum wage.

3.4. Eligibility Rule for Child Tax Credit

● To qualify for CTC, the claimants do not necessarily have to work, but must live with a child under

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[30] In 2012, the minimum working hours for a couple changed from 16 to 24 hours per week.

16 years of age. If a child or young person is aged 16 to 19 and has left full-time non-advanced education, the claimant may apply for Child Tax Credit for up to 20 weeks after the child leaves school. However the child needs to have registered with the following services:

1. Local careers service
2. The Ministry of Defence, if he/she is waiting to join the Armed Forces
3. Any similar organizations in any European Economic Area Country

3.5. Definition of Income

- The amount of tax credits a claimant receives depends on the level of income. A claimant must report the following types of income in the tax credits claim form:
  1. Salary and wages, including commissions, bonuses, tips, gratuities, profit-related relays, holiday pay, statutory sick pay, etc.
  2. Taxable profits from self-employment
  3. Social security benefits including carer's allowance, bereavement allowance, contribution-based jobseekers' allowance, contribution-based Employment and Support Allowance, Income Support, and Incapacity Benefits paid after 28 weeks of incapacity. Non-taxable benefits including Child Benefits, Attendance Allowance, Housing Benefits, Council Tax Benefits, etc. are not included.
  4. The remaining amount of the following types of income after the first €300 is deducted from the combined total:
     4.1. State retirement pensions
     4.2. Most income from savings and investments
     4.3. Rental income from property
  5. 4.4. Foreign income, for example, from investments or property overseas and social security payments from overseas governments

- There is no assets test. Capital (i.e. bank deposits in current or savings accounts, most lump-sum payments, the value of property, shares and other investments) are not taken into account when the tax credit is calculated[31].

3.6. Maximum Tax Credit as % of Average Disposable Income

- Table 3.1 shows the maximum tax credit as a percentage of average disposable income for different sizes of families. On average, the tax credit increases the disposable income of a tax filer by over 10%. Singles who work between 16 and 29 hours per week receive a maximum tax credit of 11.7% of their average disposable income. If they work 30 hours or more they receive up to 16.5% of their average disposable income.

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[31] A Guide to Child Tax Credit and Working Tax Credit. 2011. HM Revenue and Customs.

- A two-person family comprised of a couple where both work between 16 and 29 hours per week receives a maximum tax credit of 11.3% of their average disposable income. If they work 30 hours or more, they receive a maximum of 13.6%. of average disposable income as maximum tax credit.

Table 3.1: WTC as the Percentage of Average Disposable Income for Different Family Sizes

Family Size	Child	Yearly Average Disposable Income (£)	Maximum WTC (16-29 hours) (£)	Maximum WTC (30+ hours) (£)	Maximum WTC (16-29 hours) as % of Average Disposable Income	Maximum WTC (30+ hours) as % of Average Disposable Income
1	0	16,464	1,920	2,710	11.7	16.5
2	0	34,176	3,870	4,660	11.3	13.6
3	0	45,648	3,870	4,660	8.5	10.2
4	0	46,944	3,870	4,660	8.2	9.9

Source: Office for National Statistics. Family Spending - Table A37 - Income and source of income by household composition, 2010.
(http://www.ons.gov.uk/ons/publications/re-reference-tables.html?newquery=*&newoffset=75&pageSize=25&content-type=Reference+table&edition=tcm%3A77-229759)
Assume: There are at most two earners.

- Table 3.2 describes maximum WTC and CTC in terms of percentage of average disposable income for families with one or more children. A three-person household comprised of a couple who works less than 30 hours and a child will receive a maximum tax credit (including WTC and CTC) equivalent to 20.9% of their average disposable income. A five-person household with two or three children will receive a maximum tax credit (including WTC and CTC) equivalent to 23.2% and 27.7% of average disposable income respectively.
- For a couple who works 30 hours or more, the maximum tax credit will increase. For instance, a three-person household with one child will receive a maximum tax credit equivalent to 23.3% of their average disposable income. A five-person household with one or two children will receive a maximum tax credit equivalent to 25.1% and 29.5% of their average disposable income respectively.
- Single parents, whether working more or less than 30 hours, receive a higher maximum tax credit because their average disposable income is much lower than that of married couple families.

Table 3.2: Maximum CTC and WTC in terms of Percentage of Average Disposable Income for Different Family Types

Family Size	No. of Children	Average Disposable Income (£)	Maximum CTC and WTC (£)	Maximum CTC and WTC (30+ hours) (£)	Maximum CTC and WTC (16-29 hours) as % of Average Disposable Income	Maximum CTC and WTC (30 hours+) as % of Average Disposable Income
1	0	16,464	1,920	2,710	11.7	16.5
2	0	34,176	3,870	4,660	11.3	13.6
	1	11,472	6,970	7,760	60.8	67.6
3	0	45,648	-	-	-	-
	1	33312	6970	7760	20.9	23.3
	2*	16464	9525	10315	57.9	62.7
4	0#	46944	-	-	-	-
	1+	41136	6970	7760	16.9	18.9
5	0	46944	6970	7760	14.8	16.5
	1	41136	6970	7760	16.9	18.9
	2	41136	9525	10315	23.2	25.1
	3	43632	12080	12870	27.7	29.5

Source: Office for National Statistics. Family Spending - Table A37 - Income and source of income by household composition, 2010.
http://www.ons.gov.uk/ons/publications/re-reference-tables.html?newquery=*&newoffset=75&pageSize=25&content-type=Reference+table&edition=tcm%3A77-229759)
Note: when there are two adults, we assume they are a couple.
We assume the basic element, couple and single parent element and 30-hour element in the Work Tax Credit, and family element and child element in the Child Tax Credit.
Singles who work less than 30 hours receive only the basic element. If they work 30 hours or more, they receive the basic element and the 30-hour element. A single parent who works less than 30 hours receives a Working Tax Credit and a family element and child element for each child. One who works 30 hours or more receives a higher Working Tax Credit, family element and child element for each child.
The one- and two-person households are non-retired households.
* This represents a family of one adult and two or more children in the original data.
# This represents four or more adults in the original data.

3.7. Income Limit

- The income limit for a one-person household is equivalent to 85.0% of average disposable income. For those with children, the income threshold is higher. For example, if a three-person household with one child earns no more than £45,000, the family is eligible to apply for the CTC. This income limit represents 135.1% of average disposable income. Excluding single parents with children, the income limit for families comprised of couples with children generally ranged from 103.1% to 135.1% of average disposable income, depending on their family size.

Table 3.3 Income Limit for CTC and WTC as a Percentage of Average Disposable Income

Family Size	Number of Children	Income Limit for WTC and CTC(£)	Income Limit as % of Average Disposable Income
1	0	14,000	85.0
2	0	18,000	52.7
	1	45,000	392.3
3	0	18,000	39.4
	1	45,000	135.1
	2	45,000	273.3
4	0	18,000	38.3
	1+	45,000	109.4
5	0	18,000	38.3
	1	45,000	109.4
	2	45,000	109.4
	3	45,000	103.1

Sources: Office for National Statistics. Family Spending - Table A37 - Income and source of income by household composition, 2010.
(http://www.ons.gov.uk/ons/publications/re-reference-tables.html?newquery=*&newoffset=75&pageSize=25&content-type=Reference+table&edition=tcm%3A77-229759)

3.7 Expenditure of WTC and CTC

● In 2010/11, WTC and CTC as a percentage of Gross Domestic Product (2010) was about 1.7%.

Table 3.4: WTC and CTC as a Percentage of Gross Domestic Product (at constant price = 2008), 2010/11

	2009/2010	2010/11
WTC and CTC (Entitlement Payments) (£)	22,001	23,338
GDP (millions) (£)	1,371,163	1,395,312
WTC and CTC as % of GDP	1.6%	1.7%

Sources: i. Child and Working Tax Credit
(http://www.hmrc.gov.uk/stats/tax_receipts/tax-receipts-and-taxpayers.pdf)
ii. GDP in 2010
(http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-economic-accounts/q2-2011/index.html)

3.8 Participation Rate of Working and Child Tax Credit

● Official statistics[32] indicate that 5.7 million families, with 9.2 million children, were tax credit recipients or were receiving equivalent child support through benefits. This represents 31.9% of all families in the United Kingdom. There were 5.1 million families with children receiving CTC, representing 28.5% of all families. Of these families, 1.4 million families that did not include a

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[32] Child and Working Tax Credits Statistics. December 2011.
(http://www.hmrc.gov.uk/stats/personal-tax-credits/cwtc-dec2011.pdf)

working adult were receiving CTC, representing 7.8% of all families. In other words, 75.4% of tax credit recipient families that included working adults were receiving WTC and/or CTC.

- Another study indicates that the number of households with working-age adults receiving tax credits has more than doubled. In 2011, 3.3 million such households received tax credits, representing about 17% of all households that include working-age adults.[33]

3.9 Labour Supply Effect

- Studies show that the previous form of Working Tax Credit, the Working Family Tax Credit (WFTC), increased the probability that single parents would join the workforce,[34] either full time or part time. Francesconi and Van der Klaauw (2004) found that WFTC increased the proportion of single mothers working 16 hours or more by 7%, and that of mothers working 30 hours or more by 9%.
- WFTC reduced the labour supply of married mothers, but raised that of married fathers. The overall effect of labour participation on married mothers was negative[35].
- A study conducted by Her Majesty's Treasury[36] found that the introduction of WTC had a small positive effect on the number of people employed. It also found that it increased the employment probability among people with low academic qualifications.

3.10 Poverty Reduction Effect

- One study shows that WTC and CTC helped 23% of low-income families rise above the poverty line in 2010.

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[33] http://www.poverty.org.uk/15/index.shtml

[34] Blundell, Brewer and Shepherd. 2005. Evaluating the Impact of Working Families' Tax Credit Using Difference-in-difference. HM Revenue & Customs. Francesconi and Vander Klauuw. 2004. The Consequence of ' in-work' Benefit Reform in Britain: New Evidence from Panel data. Brewer, Duncan, Shepherd and Suarez. 2005. Did Working Families' Tax Credit Work? The Final Evaluation of the Impact of In-work Support on Labour Supply and Programme Participation. Inland Revenue. Gregg and Harkness. 2003. Welfare Reform and Lone Parent Employment in the UK. Department of Economics and Leverhulme Centre for Market and Public Organization, University of Bristol.

[35] Blundell, Richard, Mike Brewer, Andrew Shepherd. 2005. The Impact of Tax and Benefit Changes between April 2000 and April 2003 on Parents' Labour Supply.

[36] Working Tax Credit and Labour Supply.
(http://www.revenuebenefits.org.uk/pdf/wtc_and__labour_supply_2008.pdf)

Chart 3.2

Only a quarter of tax credit recipients are no longer in low income because of the tax credit monies received

Still in low income
30%

Would not be in low income even without the tax credits
47%

No longer in low income because of the tax credits
23%

Source: Households Below Average Income, DWP; the data is the average for 2006/07 to 2008/09; UK; updated Sep 2010

Source: http://www.poverty.org.uk/15/index.shtml
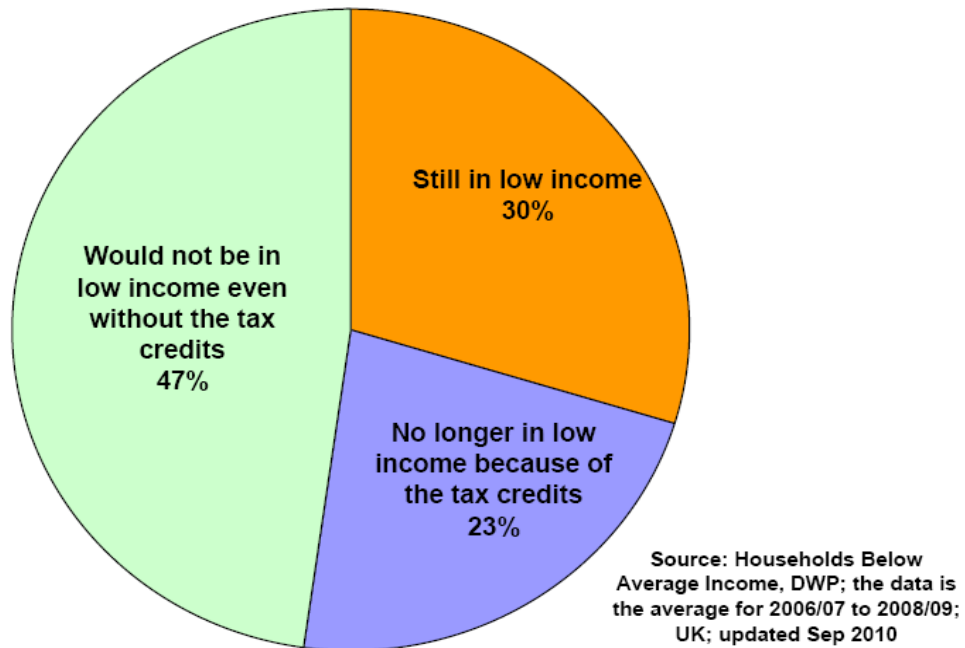
3.11 Fraud and Error

● Her Majesty's Revenue and Customs administers CTC and WTC, and pays an estimated £29 billion to around six million households. Fraud and error are quite signficant. Published figures for 2008-09 show that levels of fraud and error for tax credits stood at 8.9% of total expenditure, equating £2.1 billion. Underpayments represented around £260 million, or 1.1% of spending [37].

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[37] Tackling Fraud and Error in the Benefit and Tax Credits System
(http://www.dwp.gov.uk/docs/tackling-fraud-and-error.pdf)

4. Working for Family Tax Credits in New Zealand

The Working for Family Tax Credits (WFTC) system in New Zealand is similar in structure to the CTC and WTC in the U.K. This is a family-based scheme which does not have a phase-in range. But it sets a minimum number of working hours as a key condition for obtaining the maximum tax credit.

4.1. The Working for Families Package

In New Zealand, the government has introduced the Working for Families package to help working families. This package includes Working for Family Tax Credits (WFTC), accommodation supplements and childcare assistance. Here, we focus only on the WFTC.

4.1.1. WFTC is a group of tax credits targeting low- to middle-income families with dependent children. It consists of the following tax credits:

1.   Family tax credit is a payment for all low- to middle-income families with dependent children.
2.   In-work tax credit is a payment for families with dependent children aged 18 or younger and adults who work a required number of hours each week.
3.   Minimum family tax credit ensures that the annual income (after tax) of a family with dependent children does not fall below a minimum threshold.
4.   Parental tax credit is paid to families with a newborn baby for the first 56 days (eight weeks) after the baby is born.

4.1.2. Objectives

●   The objectives of the Working for Families programme are as follows:
1.   To make work pay by supporting families with dependent children and rewarding them for working.
2.   To ensure income adequacy, with a focus on low- and middle-income families with dependent children to address issues of poverty, especially child poverty.
3.   To achieve a social assistance system that encourages people to work by making sure they get the assistance they are entitled to, when they should, and with delivery that supports them to obtain and retain employment.

4.2   Main Eligibility Criteria for WFF Tax Credits

●   Eligibility criteria for family tax credit (FTC): families must have dependent children aged 18 or below and meet the minimum income threshold.

- Eligibility criteria for in-work tax credit (IWTC): families must not be in receipt of a main benefit; couples must work at least 30 hours a week between them; and single parents must work at least 20 hours a week.
- Eligibility criteria for minimum family tax credit (MFTC): couples must work at least 30 hours a week between them; and single parents must work at least 20 hours a week.
- Eligibility criteria for parental tax credit: Families who do not receive paid parental leave or an income-test benefit are eligible for parental tax credit (PTC).

4.3. Definition of Family Income[38]

- There is no asset requirement. A claimant is only required to report his/her family income on the tax credit registration form. Types of family income include the following:
  1. Cash salary
  2. Student allowance or benefits
  3. Trust income
  4. Fringe benefits given by the company
  5. Passive income such as interest and dividends over $500 derived by dependent children
  6. Income from a portfolio investment entity
  7. Foreign-sourced income of non-resident spouses
  8. Tax-exempt salary and wages
  9. Other payments used to replace income or to meet a family's living expenses if the total exceeds $5,000 a year per family

4.4. Maximum Credit in terms of % of Median Household Income

- The amount of tax credit a claimant receives depends on his/her income, the number of children in the family and the ages of the children. The calculation of credit is similar to that in the United Kingdom. That is, eligible persons can receive the highest tax credit once they have met the minimum work hours. The amount of tax credit will gradually decline when the family income increases.

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[38] http://www.ird.govt.nz/technical-tax/legislation/2010/2010-130/2010-130-changes-wfftc/

Table 4.1: Maximum FTC, IWTC and MFTC in Terms of Percentage of Weekly Median Household Income

	Weekly Median Household Income from All sources (2011) (NZD)	Maximum FTC as % of Median Household Income	Maximum IWTC as % of Median Household Income	Maximum MFTC as % of Median Household Income	Maximum Combined Amount of FTC and IWTC
Couple with one dependent child	1,486	5.9	4.0	28.7	10.0
Couple with two dependent children	1,604	9.3	3.7	26.6	13.0
Couple with three or more dependent children*	1375	15.3	4.4	31.1	19.6
Couple with four or more dependent children*	1375	19.7	5.5	31.1	25.2
Couple with fifth or more dependent children*	1375	24.1	6.5	31.1	30.7
One parent with dependent child(ren)only	594	14.8	10.1	71.9	24.9

Sources: Working for Families Tax Credits Registration Pack. February 2011 (http://www.ird.govt.nz/forms-guides/number/forms-200-299/ir200-guide-wfftc.html); Weekly Median Income from All Sources: Statistics New Zealand. (http://www.stats.govt.nz/)
Note: * Since Statistics New Zealand only provides the weekly household income of couples with three or more dependent children, we assume the weekly median household income is the same for couples with three, four or five dependent children.

● The more children a family has, the higher the maximum IWTC the working members of the family can receive. Table 4.1 shows that the maximum IWTC as a percentage of weekly median household income varies with the number of children a family looks after. For example, a couple with one child can receive 4.0% of their weekly median household income as the maximum IWTC while one with five children can receive 6.5% of weekly median household income. For single parents with one or more children, the maximum amount of in-work tax credit is higher, at 10.1% of weekly median household income, because their household income is far lower than the incomes of married families (See Table 4.1).

● If a couple with or without children has a very low family income and meets the minimum working hours under MFTC, they may be entitled to the tax credit. Maximum MFTC for couples with or without children is equivalent to around 26.6% to 31.1% of weekly household income (see Table 4.1).

● When we combine FTC and IWTC, the maximum amount of combined tax credits is similar to that in the U.S. It is roughly equivalent to 10.0%, 13.0%, 19.6%, 25.2%, 30.7% of the median household income of couples with one, two, three, four or five dependent children respectively (see Table 4.1).

4.5. Income Limits of IWCT, FTC and MFTC as % of Weekly Median Household Income

- The income limits of the IWCT are equivalent to 95.8%, 108.5% and 147.6% of median household income for couples with one, two or three and above dependent children respectively.

- The income limits of the FTC are equivalent to 76.4%, 88.7% and 126.5% of median household income for couples with one, two or three and above dependent children respectively.

- As MFTC is provided for very poor families, its income limits are much lower, being equivalent to 33.2%, 30.8% and 35.9% of median household income for couples with one, two or three and above dependent children respectively.

Table 4.2: Income Limits for FTC, IWC and MFTC as a Percentage of Median Household Income

	Weekly Median Income from All sources (2011) (NZD)	Income Limit for FTC as % of Median Household Income	Income Limit for IWTC as % of Median Household Income	Income Limit for MFTC % of Median Household Income
Couple with one dependent child	1486	76.4	95.8	33.2
Couple with two dependent children	1604	88.7	108.5	30.8
Couple with three or more dependent children	1375	126.5	147.6	35.9
One parent with dependent child(ren)only	594	191.1	239.6	83.2

Sources: Working for Families Tax Credits Registration Pack. February 2011 (http://www.ird.govt.nz/forms-guides/number/forms-200-299/ir200-guide-wfftc.html) ; Weekly Median Income from All Sources: Statistics New Zealand. (http://www.stats.govt.nz/)
Note: Weekly income limits of Family Tax Credit and In-work Credit for couple with three or more children are calculated based on the annual income limit.

4.6. Administration

- In most cases, Inland Revenue (IR) pays WFF Tax Credits, but Work and Income, a service in the Ministry of Social Development (MSD), pays FTC to most beneficiaries.

- Between 2004 and 2008 the government changed the WWF packages. First it introduced the IWTC. Second, it increased the number of non-beneficiary families eligible for WFF Tax Credits and increased the payments through both IWTC and changes to abatement thresholds and rates. Third, it reduced the Accommodation Supplement abatements to enable families moving off a benefit to continue to receive support for their housing costs and increase the number of eligible non-beneficiary families. Fourth, it changed Childcare Assistance to increase the number of eligible non-beneficiary families and increased the amounts received to reduce the financial barriers to working.

4.7. Expenditure of Tax Credits as % of GDP

- Table 4.3 shows that total expenditure on FTC and IWTC amounted to NZD $2,754 million, equivalent to 1.5% of Gross Domestic Product in 2009/2010.

Table 4.3: Expenditures of FTC, IWTC, MFTC as % of GDP (2009/2010)

(million)	Amount (NZD)	% of GDP
FTC	2,159	1.2
IWTC	595	0.3
MFTC	9	0.005
Combined FTC , IWTC, and MFTC	2,754	1.5
GDP	186,690	

Source: Budget 2011 (http://www.treasury.govt.nz/budget/2011/taxexpenditure/03.htm); GDP, 2010 (http://www.stats.govt.nz/browse_for_stats/economic_indicators/NationalAccounts/NationalAccounts_ HOTPYeMar11.aspx)

4.8. Advantages of the Work for Family Package

● The Work for Family Package, particularly the introduction of IWTC, caused more single parents to obtain paid work, and more to work 20 hours a week or more. The Minimum Family Tax Credit also helped single parents transition from welfare to paid employment; 81% of recipients were single parents in 2008.

● The WFF allowed second earners to reduce their working hours in order to care for their children.

● The WFF changes increased the income of low-income families and reduced the income gap between high- and low-income households.[39]

● Child poverty was reduced. The percentage of children living in poverty was 8% lower than it would have been without the WFF changes from 2004 to 2008.

4.9. Criticisms

5. Critics argue that in-work benefits encourage employers to cut salaries or deny raises to low-income earners, considering that such benefits compensate for low wages. However, if a minimum wage is in place and is adjusted periodically, it can largely protect against this behavior.

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[39] Changing Families' Financial Support and Incentives for Working: the Summary Report of the Evaluation of the Working for Families Package. July 2010. p. 46.

Family Income Supplement in Ireland

The Family Income Supplement (FIS) is a family-based allowance provided for employees with children in Ireland. Similar to the design of the WTC and CTC in Britain, it has only a phase-out range.

5.1. The Objective
- The FIS aims to provide financial support to low-paid employees with children.

5.2. Eligibility Rules
- **There are four means tests:**
  1. Employment should last at least three months
  2. The minimum number of working hours is 19 hours per week. Self-employment is not counted.
  3. The claimant must be supporting at least one qualified child who normally lives with the claimant. The child must be under age 18 or between age 18 and 22 in full-time education.
  4. The claimant must be earning less than a set amount, which varies according to family size.
- Applicants are ineligible if they are receiving the Jobseeker's Benefits or Jobseeker's Allowance, State Pension (Transition) or Pre-Retirement Allowance.

5.3. Definition of Income
  1. The assessable earnings of the applicant and his/her spouse, civil partner or cohabitant
  2. Any extra income from employment of the applicant and his/her spouse, civil partner or cohabitant
  3. Any income from self-employment of the applicant and his/her spouse, civil partner or cohabitant
  4. Income from occupational pensions
  5. Income from social welfare payments
  6. Rental income from the letting of property or land

5.4. Capital/Assets
- The Department of Social Protection generally does not assess capital or examine an applicant's bank account details, though there are no rules excluding the assessment of capital.

5.5. Rates
- FIS is calculated on the basis of 60% of the difference between the income limit for the family size and the assessable income of the person(s) raising the child(ren).The combined income of a couple is taken into account.
- Minimum allowance is €20 per week.

5.6. Income Limits

- The net average weekly family income must be below an income threshold for a particular family size. Table 5.1 shows various income limits for family sizes.

Table 5.1: Income Limit for Various Family Sizes in 2012

Number of Children	Income Limit (in € per month)
One child	2,024
Two children	2,408
Three children	2,812
Four children	3,296
Five children	3,800
Six children	4,264
Seven children	4,808
Eight children	5,192

5.7. Time Limit for the Entitlement

- FIS is usually paid for 52 weeks. At the end of the 52 weeks, applicants can re-apply for FIS.

6. Temporary Measures for the Supplementary Income in Macao

Temporary Measures for the Supplementary Income is a kind of negative income tax scheme. It is different from the EITC in the United States and the CTC/WTC in the United Kingdom in that it is an individual-based income support scheme. Besides, it has only a phase-out range and is designed only to ensure a minimum income for individual workers.

6.1. Objective
- To alleviate the financial burden of low-income employees due to the economic downturn.

6.2. Eligibility Criteria for the Supplementary Income
1. Holder of a Macao Special Administrative Region permanent identity card
2. 40 years of age or above
3. Registered as an employee with the Social Security Fund
4. Earning less than MOP$13,200 per quarter and working a minimum of 152 hours per month
5. If working in the textile, garment or leather manufacturing industries, working no less than 128 hours per month
6. No assets test

6.3. Income Limit
- Applicants whose monthly earnings are less than MOP$4,400 or whose quarterly income is less than MOP$13,200 are eligible to apply for the supplementary income. The income limit of the Temporary Measures for the Supplemental Income is equivalent to 44% of median monthly earnings on an individual basis.[40]

6.4. Amount of the Supplementary Income
- The determination of the supplementary income is based on an individual's salary rather than his/her household income. The amount of the supplementary income is equivalent to the difference between the actual salary and the quarterly income limit of $13,200. For example, a person earning MOP$6,000 per quarter would receive MOP$7,200 in supplemental income.

6.5. Assets Test
- There is no assets test

6.6. Way of Delivery
- The subsidy is deposited into eligible applicants' bank accounts in May, August, November and February.

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[40] Median Monthly Earning in Q4 of 2011 is 10000 Patacas.
(http://www.dsec.gov.mo/TimeSeriesDatabase.aspx?lang=en-US&KeyIndicatorID=25)

6.7. Expenditure on Temporary Measures for Supplemental Income as % of GDP

- The expected expenditure on the Temporary Measures for Supplemental Income is $37.4 million in 2011. This is equivalent to 0.06% of Gross Domestic Product in the first quarter.

6.8. Participation Rate

- According to news reports, 9,362 employees received the supplementary income[41] in 2008, at a cost of MOP$31.4 million. In 2009, 8,716 employees received supplementary income, at a cost of $32.8 million.

6.9. Criticism

- Employers take advantage of this system by denying wage increases to employees and encouraging low-wage employees to apply for the supplemental income.

7. Concluding Remarks

Table 6 summarizes the main features of different tax credit and in-work subsidy schemes for low-income families or earners.

1. There are family-based and individual-based tax credit schemes. The former is an assessment of family income while the later is an assessment of individual income.

2. The main objectives of tax credit schemes are to increase employment by creating additional financial rewards for those remaining in or taking up low-paid work, and to increase the income of low-paid workers and their families to mitigate poverty.

3. Most family-based tax credit schemes are designed to address poverty, particularly those that target working families with children. An individual-based scheme that targets working individuals mainly addresses the work incentive issue.

4. Among family-based tax credit systems there are two main types. One emphasizes incentives to work, as in the United States and Canada. This type includes phase-in, plateau and phase-out ranges. The other emphasizes poverty reduction, as in Britain, New Zealand and Ireland. This type has plateau and/or phase-out ranges. Macao's system is the only individual-based tax credit system in this study. It has only a phase-out range.

5. The most common means test is being employed or working a minimum number of hours; the second is an income test; the third is a qualified children test (if the scheme is family-based). There is no assets test.

6. The age of qualified children varies across different schemes. For example, for the Earned Income Tax Credit (EITC) in the United States, a qualified child must be under 19 or between 19 and 24 if a full-time student or totally disabled. For the Child Tax Credit (CTC) in Britain, a qualified child must be under 16 or between 16 and 19 if a full-time student. For Family Tax Credit (FTC) in New Zealand, a qualified child must be 18 or under. For the Family Income Supplement

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[41] 「工作收入補貼措施續推行」。華僑報。2010 年 4 月 14 日

(FIS) in Ireland, a qualified child must be under age 18 or between 18 and 22 if a full-time student.

7. The maximum benefit level as a percentage of median household income or average disposable income is much higher for working families with children than for working individuals or married couples. It can be as high as over 20% of median/average household income, depending on the number of children.

8. The income limit as a percentage of median household income or average disposable income is much higher for a larger household with children than households without children. In the U.S., the income limit of EITC is as high as 60-70% of median household income, depending on the size of family and the number of children. In Britain, the income limit of WTC and CTC can be up to 109%-135% of average disposable income, depending on the number of children. In New Zealand, the income limit of IWTC is 95.8% of median household income for a couple with one child.

9. Government expenditure on tax credit accounts for only a small proportion of GDP. The expenditure in Britain is the highest, about 1.7% of real GDP, while in Canada it is lowest, 0.08% of real GDP.

10. Impacts on employment: 1) Changes in labour participation are more significant than changes in the number of working hours of those already employed. 2) Among singles, women are more likely than men to join the workforce after the introduction of tax credits, partly because more women are jobless. 3) Low-income groups and single parents are more responsive to financial incentives because they obtain higher subsidies than other groups.

11. Impacts on poverty reduction: Tax credit schemes produce a positive effect in reducing poverty. In the U.S., the EITC lifted about 6 million people out poverty in 2009. Half of them were children. In Britain, the WTC and CTC lifted 23% of low-income families out of poverty in 2010.

12. Disadvantages of tax credit schemes: 1) Where there are no stringent checks on information provided in income tax returns, applicants may obtain tax credit fraudulently by reporting false information. 2) Tax credit can reduce the labour participation of second earners among married couples because the additional income from second earners will lower the total credit the main earner receives.

Table 6 Summary of Features of Various Tax Credit and Low Income Subsidy Schemes

		Model 1		Model 2			Model 3
		United States	Canada	Britain	New Zealand	Ireland	Macao
	Is there any minimum wage?	Yes	Yes	Yes	Yes	Yes	No
	Main Policy Objectives	Increase Work Incentive	Increase Work Incentive	Poverty Reduction	Poverty Reduction		Alleviation of the living pressure of low-income employees
	Unit of Assessment	Family-based		Family Based			Individual based
	Structure	3 ranges (Phase-in; Plateau and Phase-out)		2 ranges (Plateau and Phase-out)		1 range (Phase-out)	1 range (Phase-out)
	Eligibility Criteria 1. Income Test	Yes	Yes	Yes	Yes	Yes	Yes
	2. Asset Test	Yes (Investment income)	No	No	No	No	No
	Age of Qualified Child	under 19 or between 19 and 24 if the children are full time students or totally disabled	N.A	under 16 or between 16 and 19 if the children are in full-time non-advanced education	18 and under	under 18 or between 18 and 22 in full-time education	N.A.
	Maximum Benefit Level in terms of % of poverty threshold or Average household income or Median Household income	Average 20% of poverty threshold	2.1% and 2.5% of Average Market Income(AMI) for male and female; 2.8% of AMI for married couple with children: one earner 1.8% of AMI married couple with children: two earners	WTC and CTC Couple: 13.6% of Average Disposable Income (ADI). Couple with a child: 23.3% of ADI; Couple with two children: 25.1% of ADI	FTC and IWTC 10%-19.6% of Weekly Median household income for couple with a child or children FTC and IWTC: 24.9% of Weekly Median household income for one parent with dependent child(ren) only	60% of the difference between actual family income and the income limit of the corresponding family size.	The difference between quarterly individual salary and MAO 13200
	Income Limit in terms of % of median household income	76.6 of median household income of two persons with a child 65.8% of median household income of three persons with a child 63% of median household income of four persons with two children	38.4% and 44.5% of AMI for the male and female earner; 42.8% of AMI for the married couple with children: one earner; 27.9% of AMI for the married couple with children; two earners	Singleton: 85.0% of ADI Couple with a child: 135.1% of ADI Four-person household with a child: 109.4% of ADI Five-person household with a child: 109.4%	FTC: 76.4% of median household income for couple with one child IWTC; 95.8% of median household income for couple with one child. MFTC: 33.2% of median household income	N.A.	N.A
	Operation	Inland Revenue Service	Canada Revenue Agency	HM Revenue & Customs	Inland Revenue	Department of Social Protection	Finance Service Bureau
	Expenditure of Tax Credit as % of GDP	0.4% of Real GDP (2010)	0.08% of real GDP (2010)	1.7% of real GDP (2010/11)	FTC, IWTC and MFTC: 1.5% of GDP FTC: 1.2% of GDP In-work tax credit: 0.3% of GDP (2009/2010)	N.A.	0.06% of GDP (1st Quarter, 2011)

Chapter 3　Equivalence Scale and Population at Risk of Poverty in Hong Kong

3.1 Introduction

In poverty and income inequality research, equivalence scales have been widely used among labour economists and policy researchers to compare the levels of resources or the relative needs of households of different size and composition[42]. Conventionally, per capita household income has been used to adjust household incomes according to the size of household[43]. That method of adjustment, however, fails to incorporate the effect of economies of scale in household consumption related to size and other differences in needs among household members. Consequently, each household type in the population will be assigned a weighted value on the equivalence scale reflecting its economic needs according to the size of household and the age of its members[44].

Over the past 30 years, a wide range of equivalence scales have been proposed by different statistical agencies. The first equivalence scale that appeared in the literature was the Oxford scale (subsequently called the "old" OECD scale). The scale was first mentioned by the OECD (1982) for possible use in "countries which have not established their own equivalence scale"[45]. The scale assumes there is a linear relationship between the actual economic need of a household (presented as equivalence scale) and the size and composition of the household. It assigns a value of 1 to the head of household, a smaller weighted value of 0.7 to each additional adult household member and 0.5 to each child.

Up to the 1990s, the Oxford scale had been used in assessing populations at risk of poverty at the EU level[46]. In a subsequent work by Hagenaars and colleagues (1994), the authors argued that the equivalence scale depends on the proportion of collective and private goods in the household[47]. This proportion can vary across different times and spaces. As a consequence of a decreasing share of food expenditure in household budgets in the 1990s, the increasing share of other items in total household

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[42] Chanfreau, J. & Burchardt, T. (2008). *Equivalence scales: Rationales, uses and assumptions*. Scottish Government paper. Retrieved August 16, 2011, from http://www.scotland.gov.uk/Resource/Doc/933/0079961.pdf. De Vos, K., & Zaidi, M.A. (1997). Equivalence scale sensitivity of poverty statistics for the member states of the European Community. *Review of Income & Wealth*, 43(3), 319-333. Food and Agriculture Organization of the United Nations. (2005). Equivalence scales: General aspects. Retrieved September 27, 2011, from http://www.fao.org/docs/up/easypol/325/equiv_scales_general_032en.pdf

[43] Buhmann, B., Rainwater, L., Schmaus, G. & Smeeding, T.M. (1988). Equivalence scales, well-being, inequality, and poverty: Sensitivity estimates across ten countries using the Luxembourg Income Study (LIS) Database. *Review of Income & Wealth*, 34(2), 115-142.

[44] Organisation for Economic Co-operation and Development. (n.d.) What are equivalence scales? Retrieved August 1, 2011, from http://www.oecd.org/dataoecd/61/52/35411111.pdf

[45] Organisation for Economic Co-operation and Development. (1982), The OECD List of Social Indicators, Paris.

[46] Dennis, I. & Chio, A-C. (2004). *Monetary poverty in new Member States and Candidate Countries.* Eurostat, Statistics in focus, Population and social conditions - 12/2004.

[47] Hagenaars, A., K. de Vos and M.A. Zaidi (1994), *Poverty Statistics in the Late 1980s: Research Based on Micro-data*, Office for Official Publications of the European Communities. Luxembourg.

spending would imply greater economies of scale[48] (Dennis & Guio, 2004). Therefore, they proposed a modified OECD scale, which also gives a weight of 1 to the first adult, but the weighted value for an additional adult member is reduced to 0.5 and 0.3 for each child[49].

In addition to the OECD's scales, there have been a number of academic studies adopting a simple parametric form in figuring out the equivalence scale for poverty measurement. This approach assumes that the household expenditure relies on N^{α}, where N refers to the size of household and α represents the equivalence elasticity, a coefficient varies between 0 and 1. This restriction gives a concave form to the equivalence scales, which implies that there is a diminishing marginal consumption in a household when the size of household increases. Therefore, unlike the OECD's scales, the marginal value for an additional household member is not kept constant, but a decreasing function with respect to the size of household, with this simple parametric approach on poverty measurement. This approach was adopted in the Luxembourg Income Study[50], where a square root scale ($\alpha=0.5$) was adopted to examine the population at risk of poverty in Europe.

As mentioned by De Vos and Zaidi (1997), the size and composition of the poor population are highly sensitive to the choice of equivalence scale[51]. Different scales lead to different results in defining groups at risk of poverty and also the ranking of different countries[52]. A comparison of strengths and weaknesses of each type of equivalence scale is illustrated in Table 3.1. The per capita income approach and the household income approach, which represent the most extreme conditions on equivalence elasticity (either $\alpha=0$ or 1), are not taken into account in the present study.

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[48] Dennis, I. & Chio, A-C. (2004). *Monetary poverty in new Member States and Candidate Countries.* Eurostat, Statistics in focus, Population and social conditions - 12/2004.

[49] Hagenaars, A., K. de Vos and M.A. Zaidi (1994), *Poverty Statistics in the Late 1980s: Research Based on Micro-data*, Office for Official Publications of the European Communities. Luxembourg.

[50] Buhmann, B., Rainwater, L., Schmaus, G. & Smeeding, T.M. (1988). Equivalence scales, well-being, inequality, and poverty: Sensitivity estimates across ten countries using the Luxembourg Income Study (LIS) Database. *Review of Income & Wealth*, 34(2), 115-142.

[51] De Vos, K., & Zaidi, M.A. (1997). Equivalence scale sensitivity of poverty statistics for the member stetes of the European Community. *Review of Income & Wealth*, 43(3), 319-333.

[52] Chanfreau, J. & Burchardt, T. (2008). *Equivalence scales: Rationales, uses and assumptions*. Scottish Government paper. Retrieved August 16, 2011, from http://www.scotland.gov.uk/Resource/Doc/933/0079961.pdf Coulter, F., Cowell, F. & Jenkins, S. (1992). Differences in needs and assessment of income distributions, *Bulletin of Economic Research*, 44(2), 77-124. Organisation for Economic Co-operation and Development. (n.d.) What are equivalence scales? Retrieved August 1, 2011, from http://www.oecd.org/dataoecd/61/52/35411111.pdf Rio Group. (2006). Compendium of best practices in poverty measurement. Retrieved October 10, 2011, from http://www.ibge.gov.br/poverty/pdf/rio_group_compendium.pdf

Table 3.1: A comparison of strengths and weaknesses for each type of equivalence scale

	Equivalized Income	Strengths	Weaknesses
Per capita income	$\dfrac{\text{Household income}}{\text{Size of household}}$	Easy to apply	Assumes no economy of scale in household consumption ($\alpha=1$), which is unrealistic
Oxford scale (OECD's old scale)	$\dfrac{\text{Household income}}{1+0.7(\text{adult}-1)+0.5(\text{child})}$	1. Relatively easy; 2. Identifies differences in marginal consumption between adults and children	Assumes a constant value for additional household members, possibly overstating the need for larger households or families due to economies of scale
OECD's modified scale	$\dfrac{\text{Household income}}{1+0.5(\text{adult}-1)+0.3(\text{child})}$		
Square root scale	$\dfrac{\text{Household income}}{\sqrt{\text{Size of household}}}$	1. Identifies the specified effect of economies of scale for each size of household	1. Relatively difficult; 2. Does not identify the relative difference in terms of marginal household consumption between adults and children
Household income	Household income	Easy to apply	Assumes a full economy of scale in household consumption ($\alpha=0$), which is unrealistic

Source: Chaufreau and Burchardt (2008); De Vos and Zaidi (1997); Dennis and Guio (2004); Lubrano (2011)

In addition to its technical complexity, the parametric approach does not consider the marginal difference in household expenditure between child and adult members in the household. Also, owing to the tremendous changes in socio-demographic profile and living arrangements of the whole population, many extended families in Hong Kong have been broken down into numerous nuclear families of a smaller size over the past 20 years. By 2010, the average household size in Hong Kong was only 2.9, suggesting that equivalence scales based on a parametric approach may not generate useful information on the economies of scale in large family consumption. Therefore, we proposed to adopt the OECD approach to equivalence scale estimation, which assumes a linear relationship between household income/expenditure and size/composition of household, for examining the possible impact of EITC on the population at risk of poverty in Hong Kong.

To determine the most appropriate measurement of poverty or income disparity in Hong Kong, it is important to assign a value to each member in the household, which can fairly reflect the economy of scale in family consumption in Hong Kong. Overall, the use of steeper equivalence scales (with a greater value for additional members in the household) results in overestimation of the needs of large households in comparison to small households, which will lower equivalized average income, and hence a lower poverty line[53]. It is thus necessary to evaluate the relevance and appropriateness of the use of an equivalence scale in assessing the population at risk of poverty. To achieve this goal, the following steps are proposed in figuring out the best estimates on the weighting factor for an additional household member in Hong Kong.

3.2 Construct a local-based equivalence scale based on Household Expenditure Survey of Hong Kong

With the use of ordinary least squares (OLS) regression analysis of the survey data in the 2009/10 Household Expenditure Survey (HES), we attempted to estimate the weighting of additional household members in figuring out the equivalence scale for Hong Kong. The 2009/10 Household Expenditure Survey was conducted by the Census and Statistics Department to collect up-to-date information on the expenditure patterns of households in Hong Kong to update the expenditure weights of the Consumer Price Index (CPI) series[54].

In figuring out the weighted value of each additional household member, household expenditure was taken as the dependent variable and regressed with the number of adults and children in the household as the explanatory (independent) variables. Alternatively, a mathematical equation can be expressed as:

$$\text{household expenditure} = \propto + \beta(\text{adult}) + \gamma(\text{child}) + \mu$$

In the next step, both sides of the regression equation are divided by the intercept coefficient (α) to estimate the marginal effect of an adult or child member in the household, for formulating the equivalence scale of Hong Kong.

$$\frac{\text{household expenditure}}{\propto} = \frac{\propto + \beta(\text{adult}) + \gamma(\text{child}) + \mu}{\propto}$$

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[53] De Vos, K., & Zaidi, M.A. (1997). Equivalence scale sensitivity of poverty statistics for the member stetes of the European Community. *Review of Income & Wealth*, 43(3), 319-333.

[54] Hong Kong Census and Statistics Department. (2010). *2009/10 Household Expenditure Survey in progress*. Retrieved December 1, 2011 from http://www.censtatd.gov.hk/press_release/other_press_releases/index.jsp?sID=2490&sSUBID=15520&displayMode=D

$$\text{Equivalence scale} = 1 + \beta'(\text{adult}) + \gamma'(\text{child}) + \mu'$$

Here, β'refers to the weighting factor of an additional adult member and γ' refers to an additional child member in the household. All statistical analyses were compiled by the HES Unit of the HKC&SD on the basis of SAS programs supplied by the investigators.

3.3 Results of regression analysis on 2009/10 HES data

According to the 2009/10 HES, it is estimated that the average household expenditure of a one-person household was around HK$12,700 at 2009/2010 (see Table 3.2). Notably, in analyzing the marginal effect of an additional household member on household expenditure, regression analysis showed that a child aged below 15 spent more, at HK$5,300, than an adult household member aged 15 or above, at HK$4,200. This implies that a weight of 0.33 (p<0.001) should be assigned to an additional adult and 0.42 (p<0.001) to each child in a household in constructing an equivalence scale for Hong Kong.

Table 3.2: Average household expenditure of a one-person household (α), marginal change of adult (β) and child (γ) members on household expenditure and their weighted value on equivalence scale estimation, 2009/2010 Household Expenditure Survey of Hong Kong

Model			
Absolute household expenditure (HK$)		Weighted value of additional household member	
Average household expenditure	**p-value**	**Parameter estimate**	**p-value**
One-person household (α) = 12,714	< 0.0001		
Additional adult member (β) = 4165	< 0.0001	β'= 0.33	< 0.0001
Additional child member (γ) = 5328	< 0.0001	γ'= 0.42	< 0.0001

Remark:

During the survey period of the 2009/10 Household Expenditure Survey, household expenditure was lowered by a number of one-off government relief measures. The household expenditure figures adopted refer to the actual expenditure incurred by households enjoying various waivers/concessions.

Source: 2009/10 Household Expenditure Survey, Census and Statistics Department, HKSARG

Compared with the OECD's modified scale, the equivalence scale derived from the 2009/10 HES indicates a smaller weight for additional adult members (0.33 vs. 0.5) and a greater value for child members (0.42 vs. 0.3). If the size of household is fixed, the HES-based equivalence scale suggests that households with more children generally require a higher level of income to achieve the same standard

of living compared to those with fewer children in Hong Kong. This would substantially influence the size and composition of households or populations at risk of poverty, as well as the possible outcome of implementing the EITC or other reformed WITS models on poverty alleviation. This will be discussed in the subsequent sections of this report.

3.4. Concluding Remarks:

In measuring relative poverty, equivalence scales have been widely used among labour economists and policy researchers to compare the levels of resources or the relative needs of households of different size and composition.

For decades, a wide range of equivalence scales have been proposed. The weighting factor of an equivalence scale depends on the proportion of collective and private goods in the household. A reduced share of other expenditures in total household spending would imply a greater economy of scale.

To determine the most appropriate measurement of poverty or income disparity in Hong Kong, it is important to assign a value to each member in the household, which can fairly reflect the economy of scale in family consumption in Hong Kong.

With the use of ordinary least squares (OLS) regression analysis on the data from the 2009/10 Household Expenditure Survey (HES), we attempted to estimate the weighting of additional household members in figuring out an equivalence scale for Hong Kong.

Results of regression analysis showed that a child would have spent more, at HK$5,300, than an adult household member aged 15 or above, at HK$4,200.

When compared with the OECD's modified scale, the equivalence scale derived from the 2009/10 Household Expenditure Survey indicates a smaller weight for additional adults (0.33 vs. 0.5) and a greater value for children (0.42 vs. 0.3). This reflects that household spending on children in Hong Kong is comparatively higher than the international standard.

Chapter 4: Assessing the Households and Persons at Risk of Poverty in Hong Kong

4.1 Source of data

In the present study, a micro dataset from the General Household Survey (GHS) was employed for the purpose of analyzing the potential outcomes of implementing different models of tax credits and other subsidies for the working poor in Hong Kong. The GHS is a continuous sample survey, which has been conducted since August 1981. Its main objective is to collect information on the labour force, employment, unemployment and underemployment (HKC&SD, 2011). In addition to labour statistics, data on the demographic and socio-economic characteristics of households and individuals are also collected. The GHS makes use of the frame of quarters maintained by the Census and Statistics Department as the sampling frame (HKC&SD, 2011). All permanent quarters and quarters in segments which are for residential purpose in Hong Kong are covered (HKC&SD, 2011). Details of the survey can be found in the Quarterly Reports of GHS compiled from the HKC&SD.

To illustrate the possible effects of tax credits on poverty reduction, the third quarter (Q3) 2011 GHS data was used. The quarter survey data is more likely to accurately reflect the socioeconomic patterns of the working poor in Hong Kong than the annual figures, because of the distribution of bonuses in the first quarter and the implementation of the Minimum Wage Ordinance in the second quarter of 2011, which altered the normal patterns.

For the GHS (2011), the Q3 2011 round contacted 20,539 households and successfully enumerated 19,654 households, yielding a response rate of 95.7%. The annonymised dataset provided by the General Household Survey Section of HKC&SD included all of these individuals and households. To adjust for the chance with which individual household were selected in the survey, design weights derived from the GHS of HKC&SD were used in the calculation to ensure the sample was statistically representative of the Hong Kong population with respect to age and sex. Lastly, to better assess the current conditions and the possible impact on the working poor of implementing EITCs and related social policies, live-in foreign domestic helpers were excluded from the present analysis.

4.2 Assessment of Households at Risk of Poverty in Hong Kong

Before examining the possible outcomes of EITC, it was necessary to determine, by international practices, how many households in Hong Kong were at risk of poverty. As noted in the previous section, subject to variations in size and composition of the household, it was necessary to adjust or equivalise the household income with a relevant equivalence scale to make reasonable comparisons across

different types of households.

Following the work from the previous section, we used the 2009/10 HES-based equivalence scale in adjusting the household income according to the respective size and composition of each household. This meant that a value of 1 was assigned to the first member of a household; 0.33 to each subsequent adult member and 0.42 to each child aged below 15.

On the basis of the U.K.'s "Household Below Average Income" Study (HBAI)[55], we used adult couples without children as the reference point and rescaled the equivalence scale (at 1.33) of this specified type of household to one. This implied that households with a lower equivalence scale than the reference point would score less than 1, those with avhigher equivalence scale than the reference would score greater than 1. In facilitating a reasonable comparison of household income across household types, the median household income of the reference point (at HK$16,000) was multiplied by the corresponding rescaled score during the process of equivalisation. Table 4.1 shows the equivalence scale, the rescaled score and the equivalised median household income by size and composition of household in Hong Kong according to the Q3 2011 round of the GHS.

Table 4.1a: Estimated equivalence scale, rescaled to couples without children and equivalised median income of Hong Kong by size, composition of household, Q3 2011

Size of household	Aged below 15	Equivalence scale derived from 09/10 HES Equivalence scale (HES scale) =1+0.33(adult)+0.42(child)		
		Equivalence scale	Rescaled to couples without children=1	Equivalised median household income (HK$)
1	0	1	0.75	12,000
2	0	1.33	1.00	16,000
	1	1.42	1.07	17,120
3	0	1.66	1.25	20,000
	1	1.75	1.32	21,120
	2	1.84	1.38	22,080
4	0	1.99	1.50	24,000
	1	2.08	1.56	24,960
	2	2.17	1.63	26,080
	3	2.26	1.70	27,200
5	0	2.32	1.74	27,840
	1	2.41	1.81	28,960

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[55] Department for Work and Pensions (2009). *Households Below Average Income: An analysis of the income distribution 1994/95 – 2007/08*. **Nick Adams, George Johnson, Peter Matejic, Rupesh Vekaria, Julia Whatley. Eds. Crown Copyright.**

2	2.5	1.88	30,080
3	2.59	1.95	31,200
4	2.68	2.02	32,320

* July-September 2011 figure
Note: Rounding to the nearest thousand

For the classification of households at risk of poverty, we followed the income threshold on relative poverty proposed by the U.K.'s HABI Study (Department of Work and Pension, 2009), which defined households that earn less than 50% of their respective equivalised median household income as "at risk of poverty". We used the term "at risk of poverty", as households that earn less than the income threshold may be income poor but asset rich, or they may not encounter difficulties, as those living in public housing are different from poor people living in private rental housing because they have more disposable income. Those deemed at risk of poverty would have a higher probability of living in poverty than others. For the sake of simplicity, we used the term "poor" to represent households or persons at risk of poverty in subsequent sections of this study. Income thresholds for different household composition types are found in Table 4.1a.

4.3 Reasons for Choosing the HES Equivalence Scale

In assessing the possible impact of adopting different approaches for measuring the risk of poverty, we compared the at-risk-of-poverty threshold on the equivalence scale derived from the 2009/10 HES with the OECD's modified scale and the current CSSA (see Table 4.1b). Overall, the thresholds for CSSA, which reflect a minimal quality of living, were consistently lower than the other two derived from equivalence scales. In addition, when compared with the at-risk-of-poverty threshold on the OECD scale, it was estimated that households with more children would have a higher at-risk-of-poverty threshold when the HES scale was adopted. As referred to in Chapter 3, the average household expenditure of a marginal child member was greater than that of an adult member of a household in Hong Kong. To better reflect the financial need of a household in Hong Kong, it was thus recommended to adopt the HES scale in the subsequent analyses.

Table 4.1b: At-risk-of-poverty threshold by different approaches, size of household and number of child household members in Hong Kong, Q3 2011

Size of household	Number of children	At-risk-of-poverty threshold		
		CSSA	OECD	HES
1	0	4,356	5,360	6,000
2	0	6,946	8,000	8,000
	1		6,960	8,560
3	0	9,035	10,640	10,000
	1		9,600	10,560
	2		8,560	11,040
4	0	10,641	13,360	12,000
	1		12,240	12,480
	2		11,200	13,040
	3		10,160	13,600

	0		16,000	13,920
	1		14,960	14,480
5	2	12,423	13,840	15,040
	3		12,800	15,600
	4		11,760	16,160

4.3 An overview of Households at Risk of Poverty in Hong Kong

Table 4.2 shows the income distribution of domestic households in Hong Kong in the third quarter of 2011 by size of household and whether or not they include working members. Overall, there were about 6.6 million persons (excluding foreign domestic helpers) living in 2.37 million domestic households in Hong Kong. When household income was taken into account, it was estimated that a total of 464,600 domestic households (or 19.6%), including 1,081,300 persons (or 16.3% of the population in domestic households), earned less than 50% of the equivalised median household income and were defined as "at risk of poverty" (or "poor" for simplicity) in Q3 2011. Among all such households, it was estimated that about 34.6% (n=160,700) came from working households (with at least one working household member) and the remaining 65.4% (n=303,900) came from non-working households (with no working members in the household) over the same period. This indicates that the poverty rate of working households in Q3 2011 was 8.4% and for non-working household was 68.3%. (See Table 4.2(1))

Analyzed by size of household, the poverty rate was higher among working households of a larger size than non-working households. As seen in Table 4.2 and 4.2(1), working one-person households only accounted for 6.8% (n=11,000) of all working poor households, while the corresponding figure for non-working households was 48.1% (n=146,200). In terms of the poverty rate, it is estimated that only 5.5% of working one-person households were poor, which was far lower than the corresponding figure for non-working one-person households, at 69.3% In contrast, working three-person and four-person households constituted 25.6% (n=41,200) and 33.8% (n=54,300) of all working at-risk-of-poverty households, while the figures for non-working households over the period were 8.7% (for three-person households) and 3.7% (for four-person households), respectively. In terms of the poverty rate, larger working households had a higher poverty rate, at 10.9% for a four-person household and 14.2% for a household of five or more persons, although the rates remained lower than non-working households.
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4.4 Distribution of Young Residents in Households at Risk of Poverty in Hong Kong

Table 4.2 and 4.2(1) show the living arrangements of young residents in households at risk of poverty in Hong Kong. Of 464,600 such households, about 123,000 (26.5%) had at least one child member aged below 15 in Q3 2011. Also, among these households with children, working households accounted for the majority at 57% (n=91,000). In terms of poverty rate, it is noted that households with children had a

higher rate at 16.4% compared to those with no children, at 5.1%, among working households. The difference in poverty rate was not considerable among non-working households with or without children.

4.5 Type of Housing and Tenure of Accommodation

When analyzed by type of housing, it was found that working households at risk of poverty were more likely to reside in public housing (at 59.6%, n= 95,700) compared to non-working households (at 48.6% or 147,800), based on the sample dataset in the Q3 2001 round of GHS (see Table 4.2). Moreover, of those households at risk of poverty living in public housing, working households made up a relatively higher share of those residing in subsidized sales flats, at 11.6% (n=18,600), compared to non-working households, at 10.5% (n=31,800). As for poverty rates (see table 4a(1)), households living in private housing and subsidized sale flats had a relatively lower rate, at 4.1% and 5.5%, compared to those living in public rental housing, at 18.2%, among working households. Non-working households followed a similar pattern, though rate differences among different types of housing were less prominent, at 63.8% for private housing, 69% for subsidized sale flats and 72.1% for public rental housing.

Table 4.2 and 4.2(1) illustrate that there were some 162,800 households at risk of poverty (n=35.0%) residing in private housing. The proportion of working poor households residing in private housing was slightly lower, at 27.4% (n=43,400), compared to non-working households, at 73.3% (n=119,400). Concerning tenure (see Table 4.2), non-working poor households residing in private housing were more likely to be owner occupiers (at 76.4% or 91,200) compared to the corresponding figures for working poor households at 65.0% (n=28,200). Working poor households in private housing were more likely to be rental tenants, at 25.8% (or n=11,200), compared to non-working households at 13.0% (n=15,500). In Table 4.2(1), it is worth noting that among those living in other types of private housing (including rent-free, provided by employers and sub-tenants) the poverty rate was the highest for both working (at 6.8%) and non-working (at 69.0%) households.

4.6 Analysis of Persons Living in Households at Risk of Poverty in Hong Kong

Table 4.2 and 4.2(1) show the distribution of persons living in domestic households in Hong Kong by age, working or non-working household, and household income. Of 1.08 million persons living in poor households, 51.2% (n=553,500) were from working households and 48.8% (527,800) from non-working households, indicating a poverty rate of 9.4% for working households and 68.1% for non-working households.

Moreover, those living in working poor households were more likely to be younger, with an estimated 24.7% (n=136,600) of residents aged below 15. The corresponding figure for non-working households was 8.7% (n=45,800). Younger age groups had the highest poverty rate among working households, at

18.4% for males and 17.6% for females. For those living in non-working households, the poverty rate for younger males, at 66.6%, was lower than for older males, at 68.5%.

4.61 Economic Activity among Working-age Persons in Households at Risk of Poverty

Apart from analyzing the possible impact of low-paid work subsidies on poor households, some literature has suggested that such programmes may provide stronger work incentives than conventional welfare benefits. Therefore, it is necessary to examine the economic activity among working-age residents of households at risk of poverty in Hong Kong, to evaluate how many persons would be encouraged to join the workforce by the proposed EITC.

Table 4.2 shows the economic activity of working-age persons living in domestic households of Hong Kong by level of household income in Q3 2011. Of 553,500 persons living in working households at risk of poverty, 371,700 were aged 15-64 (67.1%), but less than half of them were employed (n=177,400 or 47.7%). About 4.3% (n=16,000) and 48.0% (n=178,300) of them were unemployed and economically inactive[56], respectively.

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[56] The economically inactive population is made up of those persons who have not had a job and have not been at work during the seven days before enumeration, excluding persons who have been on leave/holiday during the seven-day period and persons who are unemployed. Persons such as home-makers, retired persons and all those below the age of 15 arethus included.

			At risk of poverty household and population						General household & population					
			Working		non-working		Both		Working		non-working		Both	
			#	%	#	%	#	%	#	%	#	%	#	%
HH	All		160700		303,900		464,600		1922600		445200		2367800	
	Size of	1	11000	6.8	146100	48.1	157100	33.8	201800	10.5	210900	47.4	412600	17.4
	household	2	26300	16.4	115100	37.9	141400	30.4	445100	23.2	171400	38.5	616500	26
		3	41200	25.6	26500	8.7	67700	14.6	583400	30.3	39100	8.8	622500	26.3
		4	54300	33.8	11100	3.7	65400	14.1	495900	25.8	17000	3.8	512900	21.7
		5+	27900	17.4	5100	1.7	33000	7.1	196400	10.2	6800	1.5	203200	8.6
	Having	Yes	91400	56.9	31900	10.5	123300	26.5	556700	29.0	46300	10.4	603000	25.5
	child	No	69300	43.1	272000	89.5	341300	73.5	1365900	71.0	398900	89.6	1764800	74.5
	Type of	PRH	95700	59.6	147800	48.6	243500	52.4	525800	27.3	204900	46.0	730700	30.9
	housing	HOS	18600	11.6	31800	10.5	50400	10.8	335600	17.5	46100	10.4	381700	16.1
		Private	43400	27.4	119400	39.3	162800	35	1049500	54.6	187100	42.0	1236600	52.2
		Others	2300	1.4	4900	1.6	7200	1.5	11700	0.6	7100	1.6	18800	0.8
	tenure of	Owner occupier	28200	65	91200	76.4	119400	73.3	728500	69.4	138400	74.0	866900	70.1
	accom	Tenant	11200	25.8	15500	13	26700	16.4	260400	24.8	30400	16.2	290800	23.5
	(Private)	Others	4100	9.4	12700	10.6	16800	10.3	60600	5.8	18400	9.8	79000	6.4
Person	All		553500		527800		1081300		5870100		775600		6645800	
	Male	<15	72500	13.1	21500	4.1	94000	8.7	394400	6.7	32300	4.2	426700	6.4
		15-64	171600	31	88900	16.8	260500	24.1	2251300	38.4	134600	17.4	2385900	35.9
		65+	22400	4	117700	22.3	140100	13	228000	3.9	171700	22.1	399700	6
	Female	<15	64100	11.6	24300	4.6	88400	8.2	365100	6.2	33200	4.3	398300	6
		15-64	200000	36.1	130700	24.8	330700	30.6	2384500	40.6	196600	25.3	2581100	38.8
		65+	22900	4.1	144700	27.4	167600	15.5	246800	4.2	207200	26.7	454000	6.8
	Economic	Employed	177400	47.7			177400	30	3260600	70.3			3260600	65.6
	activity	Unemployed	16000	4.3	24000	10.9	40000	6.8	90800	2.0	35700	10.8	126500	2.5
	(15-64)	Econ inactive	178300	48	195600	89.1	373900	63.2	1284300	27.7	295500	89.2	1579800	31.8

Source: General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. At-risk-of-poverty households are defined as those with household income as <50% of equivalized median household income of corresponding household sizes.
ii. Working households are defined as those with at least one working household member.
iii. Q3 2011: Quarter 3rd 2011.
iv. Subject to round-off error at arithmetic operation.

Table 4.2(1): Poverty rate of Hong Kong

			Type of household		
			Working	Non-working	All
HH[1]	All		8.4	68.3	19.6
	Size of household	1	5.5	69.3	38.1
		2	5.9	67.2	22.9
		3	7.1	67.8	10.9
		4	10.9	65.3	12.8
		5+	14.2	75.0	16.2
	Having child	Yes	16.4	68.9	20.4
		No	5.1	68.2	19.3
	Type of housing	PRH	18.2	72.1	33.3
		HOS	5.5	69.0	13.2
		Private	4.1	63.8	13.2
		Others	19.7	69.0	38.3
	tenure of accom (Private)	Owner occupier	3.9	65.9	13.8
		Tenant	4.3	51.0	9.2
		Others	6.8	69.0	21.3
Person	All		9.4	68.1	16.3
	Male	<15	18.4	66.6	22.0
		15-64	7.6	66.0	10.9
		65+	9.8	68.5	35.1
	Female	<15	17.6	73.2	22.2
		15-64	8.4	66.5	12.8
		65+	9.3	69.8	36.9
	Economic activity (15-64)	Employed	5.4		5.4
		Unemployed	17.6	67.2	31.6
		Econ inactive	13.9	66.2	23.7

Note: 1. HH: Households

4.7 Concluding remarks

Compared to other measures, a locally based equivalence scale reflects the comparatively higher cost of raising a child in Hong Kong.

Using the local equivalence scale, an estimated 464,600 domestic households, including about 1.08 million persons, were found to be at risk of poverty, with income below 50% of the equivalized median in the third quarter of 2011.

Among all households at risk of poverty, an estimated 34.6% (n=160,700) came from working households (with at least one working member) and the remaining 65.4% (n=303,900) came from non-working households (with no working members).

Working households at risk of poverty were more likely to have a larger number of members, more likely to have children, to reside in public rental housing and to be rental tenants, compared to non-working poor households.

Analysis also found that members living in working households at risk of poverty were comparatively younger than those living in comparable non-working households.

Chapter 5 : Evaluating the Financial Implications and Possible Consequences of Implementing an EITC Scheme for the Working Poor in Hong Kong

In seeking the most appropriate way to alleviate the financial stress of the working poor in Hong Kong, this chapter compares various models of financial assistance schemes and evaluates their overall coverage of potential beneficiaries, financial implications and possible outcomes of poverty reduction. First, we examined the financial feasibility of a traditional three-tier Earned Income Tax Credit (EITC) Scheme in Hong Kong.

5.1. General Characteristics of the Proposed Earned Income Tax Credit Scheme

We considered a design similar to the current U.S. model of EITC, which defines a household rather than an individual as the beneficiary, and proposed that all working households earning less than 80% of the equivalised median household income would be eligible for the scheme. The amount of tax credit for all qualifying households would be determined by the household's composition and equivalised median household income under a three-stage structure.

Overall, the three-stage structure includes (1) phase-in, in which the amount of tax credit increases with the respective household income; (2) plateau, in which the amount of tax credit is maintained at a constant level; and (3) phase-out, in which the amount of tax credit is inversely proportionate with the income of a household. In the present analysis, we followed the assumptions adopted by Wong (2010), where households earning an income less than 30% of the equivalised median (household income) would be categorized as "phase-in", those earning an income ranging from 30% to 60% of the equivalised median would be classified as "plateau"; and those earning 60%-80% of the equivalised median would be defined as "phase-out". Finally, non-working households and working households earning more than 80% of the equivalised median would not be qualified for tax credit under the proposed scheme.

In other words, every working household earning below 80% of the equivalized median would be entitled to tax credit under the proposed EITC scheme. As estimated from an analysis of the 2011 Q3 round of the General Household Survey, the government would incur an expense of HK$9,464 million for the proposed scheme, 44.4% (HK$4,204 million) of which would be spent on households at risk of poverty.

The proposed scheme would cover a total of 537,200 eligible households, or 1.68 million persons. About one-third of these are households at risk of poverty (34.6% or n=160,700), comprised of 553,200 persons, that earn less than 50% of the equivalized median household income.

The maximum tax credit for different types of households would amount to 10% of the equivalized median household income of corresponding households. The phase-in rate would be 33% and the phase-out rate 50%.

5.2. Characteristics of Potential Beneficiary Households under the Proposed EITC scheme

Tables 5.1, 5.2a and 5.2b show the basic profiles of potential beneficiary households for the proposed EITC scheme. It is estimated that more than half of these households would be three- to four-person households (52.5%, n=281,900). It is also estimated that more than 53.9% and 15.1% of these households reside in public rental housing (n= 289,600) or subsidized sale flats (n=81,200), and not more than 29.7% reside in permanent private housing (n=159,400). For the potential beneficiary households living in private housing, more than 65.2% would be owner occupiers (n=103,900), while only 28.9% would be rental tenants (n=46,000). Compared to others, households at risk of poverty (with household income below 50% of equivalized median household income) would be more likely to have a larger number of members (33.8% are four-person households, compared to 24.0% for others), living in public rental housing (59.6% vs. 51.5%) and less likely to be rental tenants (25.8% vs. 30.0%) for those living in permanent private quarters.

Table 5.1: Domestic households to benefit from the proposed EITC scheme in Hong Kong by size of household and whether at risk of poverty, Q3 2011

| Size of household | Equivalized Median Household income | | | | | |
| | <50% | | 50-80% | | All | |
	#	%	#	%	#	%
1	11,000	6.8	43,500	11.6	54,500	10.1
2	26,300	16.4	104,900	27.9	131,200	24.4
3	41,200	25.6	96,200	25.6	137,400	25.6
4	54,300	33.8	90,200	24.0	144,500	26.9
5+	27,900	17.4	41,800	11.1	69,700	13.0
All sizes	160,700	100.0	376500	100.0	537,200	100.0

Source: General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Subject to round-off error

Table 5.2a: Domestic households to benefit from the proposed EITC scheme in Hong Kong by type of housing and whether at risk of poverty, Q3 2011

Type of housing	Household income					
	<50%		50-80%		All	
	#	%	#	%	#	%
Public rental housing	95,700	59.6	193,900	51.5	289,600	53.9
Subsidized sale flats	18,600	11.6	62,600	16.6	81,200	15.1
Permanent private housing	43,400	27.0	116,000	30.8	159,400	29.7
Others	2,300	1.4	3,900	1.0	6,200	1.2
All	160,700	100.0	376,500	100.0	537,200	100.0

Source: General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Subject to round-off error

Table 5.2b: Domestic households living in permanent private housing to benefit from the proposed EITC scheme in Hong Kong by type of housing and whether at risk of poverty, Q3 2011

Tenure of accommodation	Household income					
	<50%		50-80%		All	
	#	%	#	%	#	%
Owner occupier	28,200	65.0	75,700	65.3	103,900	65.2
Tenants	11,200	25.8	34,800	30.0	46,000	28.9
Others	4,100	9.4	5,700	4.9	9,800	6.1
All types	43,400	100.0	116,000	100.0	159,400	100.0

Source: General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Others include rent-free, provided by employer and sub-tenants
iii. Subject to round-off error

According to Table 5.3, the majority of persons to benefit from the proposed EITC scheme would be of working age (15-64), at 72.7% (n=1,221,200). Compared to the older age group (aged 65+) at 10.5%, it is worth noting that more children (aged below 15) would benefit from the scheme, at 16.8% (n=283,200).

Potential EITC beneficiaries living in working poor households are more likely to be younger, with a greater share of children below 15 (24.7% vs. 13.0%) and a smaller proportion of older persons aged 65+ (8.1% vs. 11.7%). Finally, no considerable gender difference was found.

Table 5.3: Persons living in domestic households to benefit from the proposed EITC scheme in Hong Kong by sex, age and whether at risk of poverty, Q3 2011

| Sex | Age group | Household income | | | | | |
| | | <50% | | 50-80% | | All | |
		#	%	#	%	#	%
Male	Below 15	72,500	13.1	75,400	6.7	147,900	8.8
	15-64	171,600	31.0	414,900	36.8	586,500	34.9
	65+	22,400	4.0	65,500	5.8	87,900	5.2
Female	Below 15	64,100	11.6	71,200	6.3	135,300	8.0
	15-64	200,000	36.2	434,700	38.5	634,700	37.8
	65+	22,900	4.1	66,300	5.9	89,200	5.3
All		553,200	100.0	1,128,100	100.0	1,681,300	100.0

Source: General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Subject to round-off error

5.3. Possible Consequences of an EITC Scheme on Reducing Working Poor in Hong Kong

Assuming the proposed EITC scheme were implemented in Hong Kong in the third quarter of 2011, it is estimated some 106,100 (or 66.0%) working households, involving 360,000 persons, would be relieved of the risk of poverty, as they earned less than 50% of the equivalized median household income during the period (see Table 5.4 and 5.4(1)). This indicates that our proposed EITC scheme would reduce the current working poverty rate by 66.0%, from 8.4% to 2.8% Alternatively, the proposed scheme would reduce the overall poverty rate from 19.6% to 15.1% at the household level and from 16.3% to 10.8% at the personal level.

In addition, in separately analyzing the effect of poverty reduction across various socioeconomic correlates, Table 5.4 illustrates that the proposed EITC scheme would reduce working poverty among two-person households by 74.1%, households with children by 69.9%, households living in subsidized sale flats by 70.4% and rental tenants (residing in permanent private quarters) by 71.4%. At the individual level, the proposed EITC scheme would have a greater effect among the teenage population aged below 15. The number of poor male teenagers would drop by around 68%, while the number of

poor female teenagers would drop by 68.9%.

Overall, it is estimated that the proposed scheme would reduce by 22.8% the number of households at risk of poverty, and the overall poverty rate would fall from 19.6% to 15.1%. In terms of household size, the scheme would more likely benefit larger households, including more than 50% of poor households comprised of four or more persons (52.6% of four-person households; 56.4% with five or more persons) (see Table 5.4).

The corresponding figure for one- and two-person households would be much smaller, at 4.3% and 13.8% (See Table 5.4). In terms of type of housing, the proposed scheme would have a stronger impact on reducing the risk of poverty among households living in public housing (including those living in public rental housing and subsidized sale flats, at 26.0% for both) than those living in private housing, at 16.7%.

Among those living in private housing, rental tenants would be more likely to benefit from the proposed EITC scheme than others. The number of poor tenants would drop by 30.0% and the number of poor owner occupiers by 14.6%.

At the personal level, it is estimated that the proposed EITC scheme would have reduced the working poverty rate from 9.4% to 3.3% in the third quarter of 2011. When analyzed by age and sex, it would have had the greatest impact in reducing poverty among the younger population (aged below 15), by 68.3% for males and 68.9% for females.

In terms of the overall poverty rate, the proposed EITC scheme would reduce the rate from 16.3% to 10.8%. When analyzed by age and sex, it would have the greatest impact on younger males (aged below 15), reducing the rate from 22.0% to 10.3%, followed by younger females (from 22.2% to 11.1%). Comparatively speaking, the proposed scheme would have a weaker effect in reducing the poverty rate among the older age group (from 35.1% to 31.5% for males and from 36.9% to 33.6% for females).

Table 5.4: Possible consequences of the proposed EITC scheme on working at-risk-of-poverty households and persons living in working at-risk-of-poverty households in Hong Kong, Q3 2011

Variable		<50%			<60%		
		#	% change in working poverty	% change in all poverty	#	% change in working poverty	% change in all poverty
All		106,100	66.0	22.8	122,600	43.3	19.0
Size of household	1	6,700	60.9	4.3	19,600	64.3	9.2
	2	19,500	74.1	13.8	37,000	58.5	18.9
	3	26,900	65.3	39.7	33,700	45	32.2
	4	34,400	63.4	52.6	21,800	28.6	24.5
	5+	18,600	66.7	56.4	10,600	27.5	24.3
Type of housing	PRH	63,400	66.2	26.0	65,800	40.7	191.3
	HOS	13,100	70.4	26.0	18,700	50.1	25.1
	Private	27,200	62.7	16.7	36,500	45.7	16.9
Tenure of accommodation (Private only)	Owner occupier	17,400	61.7	14.6	21,800	43.7	14.4
	Tenant	8,000	71.4	30.0	12,900	54.4	29.7
	Others	2,800	68.3	16.7	2,900	44.6	13.6
Whether having child member	No	42,200	61.0	12.4	75,300	47.9	16.6
	Yes	63,900	69.9	51.8	47,300	65.9	24.5
All		360,000	65.1	33.3	342,000	38.2	22.6
Sex and age	M (below 15)	50,000	68.3	53.2	32,000	30.8	24.7
	M (15-64)	108,000	62.8	41.5	122,000	41.5	30.6
	M (>65)	14,000	62.3	10.0	14,000	38.4	8.1
	F (below 15)	44,000	68.9	49.8	29,000	31.1	24.0
	F (15-64)	130,000	65.1	39.3	131,000	39.6	27.3
	F (>65)	15,000	64.6	8.9	15,000	39.9	7.1

Source: Estimations based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.

Note. i. Q3 2011: Quarter 3 2011

ii. Working households are defined as those with at least one working household member.

iii. Subject to round-off error.

Table 5.4(1): Poverty rates at household and personal level before and after EITC adjustment.

Variable		<50%				<60%			
		All household		Working household		All household		Working household	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post
All		19.6	15.1	8.4	2.8	27.3	22.1	14.7	8.4
Size of household	1	38.1	36.5	5.5	2.1	51.5	46.8	15.1	5.4
	2	22.9	19.8	5.9	1.5	31.8	25.8	14.2	5.9
	3	10.9	6.6	7.1	2.5	16.8	11.4	12.8	7.1
	4	12.8	6.0	10.9	4.0	17.3	13.1	15.4	11.0
	5+	16.2	7.1	14.2	4.7	21.5	16.3	19.7	14.2
Type of housing	PRH	33.3	24.7	18.2	6.2	47.1	38.1	30.7	18.2
	HOS	13.2	9.8	5.5	1.6	19.5	14.6	11.1	5.5
	Private	13.2	11.0	4.1	1.5	17.5	14.5	7.6	4.1
Tenure of accommodation (Private only)	Owner occupier	17.0	14.5	3.9	1.5	17.5	14.9	6.8	3.9
	Tenant	13.0	9.1	4.3	1.2	15.0	10.5	9.1	4.2
	Others	26.5	22.0	6.8	2.1	27.0	23.3	10.7	5.9
Whether having child member	No	20.4	17.9	5.1	2.0	26.6	22.2	10.6	5.5
	Yes	19.3	9.3	16.4	4.9	29.3	22.1	24.9	8.5
All		16.3	10.8	9.4	3.3	22.8	17.6	15.3	9.4
Sex and age	M (below 15)	22.0	10.3	18.4	5.8	30.4	22.9	26.4	18.2
	M (15-64)	10.9	6.4	7.6	2.8	16.7	11.6	13.0	7.6
	M (>65)	35.1	31.5	9.8	3.7	43.5	40.0	16.0	9.9
	F (below 15)	22.2	11.1	17.6	5.5	30.4	23.1	25.6	17.6
	F (15-64)	12.8	7.8	8.4	2.9	18.6	13.5	13.9	8.4
	F (>65)	36.9	33.6	9.3	3.3	46.3	43.0	15.2	9.2

Source: Estimations based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

5.4. Concluding Remarks

Following the current U.S. model of EITC, a household is defined as the beneficiary unit, where all working households earning less than 80% of the equivalised median household income would be eligible for the proposed scheme.

The amount of tax credit for all qualifying households would be determined by the household's composition and equivalised median household income under a three-stage structure.

The three-stage structure includes (1) phase-in (household earns less than 30% of the equivalized median), in which the amount of tax credit increases with the respective household income; (2) plateau (household earns 30-60% of the equivalized median), in which the amount of tax credit is maintained at a constant level; and (3) phase-out (earns 60%-80% of the equivalized median), in which the tax credit amount is inversely proportionate with the income of the household.

Non-working households and working households earning more than 80% of the equivalised median would not be qualified for tax credit.

Our analysis shows that the government would incur an additional expense of HK$9,464 million for the proposed scheme, of which 44.4% (HK$4,204 million) would be spent on households at risk of poverty.

The proposed scheme would cover a total of 537,200 eligible households, or 1.68 million persons.

Potential beneficiary households are more likely to be large households residing in public housing. Among those living in private housing, about two-thirds would be owner occupiers.

In terms of poverty reduction, the number of working poor households would be reduced by about 66%, involving 360,000 persons (65.1%).

The proposed scheme would have a stronger impact on two-person households, households with children, households living in subsidized sale flats and rental tenants residing in private quarters.

For overall poverty reduction, the proposed scheme would have a stronger impact on larger households, households with children, households living in public housing, and rental tenants (among those living in private quarters).

At the individual level, the proposed scheme would have a greater impact on the teenage population

aged below 15, in both working and non-working households, compared with older age groups.

The older age group would be less likely to benefit from the proposed EITC scheme in terms of overall poverty reduction, except for those residing with working adult children.

Chapter 6: Comparison of the Financial Implications and the Possible Consequences of Various Models of a Reformed WITS in Hong Kong

6.1. Reform of Work Incentive Transport Subsidy Scheme (WITS)

Apart from the possible implementation of an EITC programme, revising the present Work Incentive Transport Subsidy may provide an alternative option to alleviate the financial stress of the working poor in Hong Kong. Undoubtedly, it would be comparatively easier and politically viable to implement moderate modifications to the current WITS scheme to expand its impact on poverty reduction among working households, instead of introducing the EITC scheme, which is entirely new to the government.

As mentioned in our earlier review of the current WITS scheme, the three most critical shortcomings of the scheme are its stringent eligibility criteria, its lack of adequate work incentives and its narrow objectives. To address these shortcomings, a series of focus group interviews with various stakeholders in the current WITS scheme were conducted in April 2012. Most participants in the focus groups were from working families which had applied or considered applying for WITS. As a result of these interviews, four reform initiatives are proposed in the present study for further investigation. These include:

6.1.1. Introduce Additional Work-hour Tiers for the Working Poor

To provide a stronger work incentive for low-wage earners in Hong Kong, it is proposed that two additional work-hour tiers be included in the WITS scheme on a pro-rata basis. This would mean that every eligible worker would be entitled to an additional allowance of HK$300 (or HK$600) a month if he or she worked 108 (or 144) hours at paid employment. In other words, if eligible workers worked from 108 to 143 hours, or worked at least 144 hours, they would be entitled to HK$900 or HK$1,200 respectively..

Clearly, this proposed initiative would not only provide a stronger work incentive for the working poor, but would also increase the overall amount of work subsidies for poverty alleviation. For example, the maximum work subsidy under the four-tier approach for a four-person nuclear family (an adult couple with two children) would be increased to $2,400, which is equivalent to 9.2% of equivalized median household income – a level comparable to the proposed EITC scheme.

6.1.2. Introduce Additional Allowance for Low-income Households with Children

According to our earlier analysis on formulating a locally based equivalence scale for Hong Kong, the marginal cost of an additional child in a household is greater than that of an adult. Therefore, it is suggested that all qualifying households with children should be entitled to a child allowance to alleviate the cost of living. As a result of our interviews, we would propose that children aged below 19 (who are not economically active), instead of below 15, should be qualified for the proposed

scheme because parents must provide for teenagers who are full-time students.

To make the scheme financially feasible, we have three proposals for a child allowance. First, the allowance for children aged 14 and below should be higher than that for children between 15 and 18, as the former group's expenses include not only school costs, but also childcare costs. Second, the allowance for the first three children should be the same because the marginal expense for each child is similar, whereas that of a fourth child sharply declines (See Table 6.1). Third, the allowance for the first, second and third child should be equivalent to around 40% of the marginal cost of an additional child, after deducting the total financial assistance for primary and/or junior secondary students.

Thus, we suggest that for children aged below 15, the first, second and third child in a qualifying family would each be entitled to an additional allowance of HK$800 a month, while the fourth child would be entitled to HK$500. For full-time students aged between 15 and 18, the first, second and third child in a qualifying family would be entitled to an additional allowance of HK$500 a month, while the fourth would be entitled to HK$300. (See Table 6.2)

Table 6.1: Results of regression analysis: Marginal Expenses of First, Second, Third and Fourth Child

Model			
p-value		<0.0001	
Adjusted R-square		0.6237	
Parameter	**p-value**	**Parameter**	**p-value**
$\alpha=4094$	<0.0001		
$\beta_1=1925$	<0.0001	$\beta_1'=0.47$	<0.0001
$\beta_2=2327$	<0.0001	$\beta_2'=0.57$	<0.0001
$\beta_3=1975$	<0.0001	$\beta_3'=0.48$	<0.0001
$\beta_4=1168$	0.0101	$\beta_4'=0.29$	0.0101

Source: 2009/2010 Household Expenditure Survey and the Rebasing of the Consumer Price Indices, Census and Statistics Department
Note: Model：Household Expenditure ＝ $\alpha+\beta_1$(First order of Child)＋β_2(Second order of child) ＋ β_3(Third order of child) ＋β_4(Forth order of child)
α= One-person household expenditure
β_1= Additional expenditure due to a first child in the household
β_2= Additional expenditure due to a second child in the household
β_3= Additional expenditure due to a third child in the household
β_4= Additional expenditure due to a forth child in the household
β_1'=Proportion of additional expenditure from a first child to one-person household expenditure
β_2'=Proportion of additional expenditure from a second child to one-person household expenditure
β_3'=Proportion of additional expenditure from a third child to one-person household expenditure
β_4'=Proportion of additional expenditure from a forth child to one-person household expenditure

Table 6.2: Monthly Allowance for Different Order of Child Members Aged Below 15 and 15-18

Order of birth	Marginal monthly allowance for child member aged below 15 (HK$)	Marginal monthly allowance for household member aged 15-18 who is a full-time student (HK$)
1	800	500
2	800	500
3	800	500
4	500	300
5+	0	0

Note: Subject to the limitation of data structure, respondents' ages are grouped in a quinquennial age range, implying those at the age of 19 cannot be excluded from the present analysis.

6.1.3. Extend the Income and Assets Limits for WITS Applicants

Despite the fact that the income limit for WITS applicants was extended in the first quarter of 2012, a sizable number of low-income earners, who are subject to considerable financial stress in their daily lives, remain unable to benefit from the scheme. Thus, it is proposed that the government further extend the income and assets limits (e.g. application of public rental housing in Hong Kong) for WITS applicants, which is around 80% of the equivalized median household as seen in Table 6.3 below.

Table 6.3: Income Limits of WITS and PRH and Percentage Share of Equivalized Median Household Income

Size of household	Child member	WITS income limit HK$	WITS income limit Share of equivalized median (%)	PRH income limit HK$	PRH income limit Share of equivalized median (%)
1		7684	64.0	9200	76.7
2	0	14,105	88.2	14116	88.2
2	1	14,105	82.4	14116	82.5
3	0	15,578	77.9	16663	80.3
3	1	15,578	73.8	16663	76.1
3	2	15,578	70.6	16663	72.7
4	0	17,263	71.9	19537	81.4
4	1	17,263	69.2	19537	78.3
4	2	17,263	66.2	19537	74.9
4	3	17,263	63.5	19537	71.8
5	0	17,578	63.1	22653	81.4
5	1	17,578	60.7	22653	78.2
5	2	17,578	58.4	22653	75.3
5	3	17,578	56.3	22653	72.6
5	4	17,578	54.4	22653	70.1

As mentioned in a personal communication with the General Household Survey Section of the HKC&SD, the definition of household income includes all sources of income, including the monthly mandatory contribution of the Mandatory Provident Fund (MPF) or other retirement saving schemes under the Occupational Retirement Schemes Ordinance (ORSO). Therefore, for consistency, the effective income limits (which include the 5% MPF contribution) for WITS and PRH applicants were adopted.

6.1.4. Introduce a Dual Assessment Scheme for WITS Applicants

Members of working poor families interviewed found the application procedures for WITS very cumbersome, reducing the incentive to apply. Under the current scheme, the WITS is household-based. Applicants are required to provide information on their own salary and assets as well as those of their family members. If their family members do not cooperate in providing this information, it will discourage applicants from applying for WITS. Furthermore, the scheme requires applicants to give proof of salary and working hours, with a company stamp. Thus, applicants find the application process cumbersome and unattractive, and hope that the scheme will be adjusted to provide the alternative choice of an individual-based application.

6.1.5. Revoke Assets Test

Apart from providing an alternative scheme, we propose that the assets test be revoked, for the following three reasons. First, WITS already has work hours and income tests for applicants. It is unreasonable to have an assets test if one of scheme's objectives is to encourage low-income earners to work. Second, eliminating the assets test would simplify the application procedure and increase the take-up rate of a reformed WITS. Third, foreign tax credit schemes do not include assets tests in screening applicants. This makes the application procedure simpler and encourages more eligible families to apply for and obtain the subsidy. Therefore it is suggested that the assets test under WITS be revoked. Instead, potential income generated from assets, such as the annual rent of residential property[57], can be included in the income test, as in the Workfare Income Supplement Scheme in Singapore.

In assessing the possible consequence of each initiative in reforming the WITS scheme, six modified

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57 The Annual Value is the estimated annual rent of your property if it were to be rented out, excluding the furniture, furnishings and maintenance fees. It is determined after analysing the rents of similar or comparable properties. The basis of determining the AV is the same whether the property is rented out at high or low rental rates, owner-occupied or left vacant.
Illustration (A):
Estimated market rent of your flat is $1,000 per month
Annual Value is: $1,000 x 12 = $12,000
(http://www.iras.gov.sg/irasHome/page04.aspx?id=2110)

schemes derived from the current Work Incentive Transport Subsidy of Hong Kong (WITS) are proposed for further investigation. Detailed features of each modified scheme can be found in the following table:

Table 6.4: Summary of characteristics of various WITS models

		Model of WITS					
		1	2	3	4	5	6
1. Extended coverage	Dual assessment scheme	Yes	No	No	No	No	No
	Greater income limit (PRH)	Yes	Yes	No	Yes	No	No
2. Increased size of subsidy	Extending work-hour tier	Yes	Yes	Yes	Yes	Yes	No
	Child allowance	Yes	Yes	Yes	No	No	No

6.2. Characteristics of Suggested Work Incentive Transport Subsidy Scheme

6.2.1. Estimated Cost

Model 1, integrating all four proposed initiatives, would be the most expensive at HK$15.7 billion. This is more than four times the cost of the current WITS scheme at HK$3.5 billion (see Table 6.3(a)). If the dual assessment scheme is not implemented (i.e. Model 2), the estimated expense would be reduced by HK$3.1 billion (or 19.5%) to HK$12.6 billion. Also, if the revised WITS scheme introduced only the additional work-hour tiers and child allowance for qualifying households (i.e. Model 3), it is estimated that the annual cost would be further reduced by HK$3.6 billion (28.9%) to HK$9.0 billion, when compared to that of Model 2.

6.2.2. Potential Beneficiary Households

Our study also examined the number of households that would benefit from the proposed WITS schemes. The results (see Table 6.3(a)) show that Model 1 would cover the greatest number of households, at 864,000. Models 2 and 4 would be the second largest, covering 534,000 working households if less restrictive income limits (i.e. PRH) were adopted. Finally, retaining the existing income limits, Models 3, 5 and 6 would cover only 416,000 households.

Further investigation of income among potential beneficiary households under the different proposed schemes suggests that greater coverage does not necessarily mean that a fair system of financial aid for the working poor in Hong Kong can be maintained. As illustrated in Table 6.3(a), it is estimated that the dual assessment scheme (Model 1) would allow about 340,000 households earning more than 80% of

median income to become eligible for the scheme. The corresponding figures for other models would be considerably lower at 10,000 for Models 2 and 4 and 3,000 for Models 3, 5 and 6. This suggests that a sizable number of households that are not at risk of poverty would be qualified for the scheme, which would adversely affect the efficient use of public resources.

If we compare only the models adopting single assessment schemes (Models 2 – 6), those adopting less restrictive income limits (Models 2 and 4) would have greater coverage for households that are marginally at risk of poverty (earning 50-80% of median income) by more than 42%, from 259,000 to 369,000 (See Table 6.3(a). Also, the less restrictive eligibility criteria of Models 2 and 4 would provide greater coverage for one-person households (from 29,000 to 52,000), four-person households (from 75,000 to 143,000), and households of five persons or more (49,000 to 76,000).

The less restrictive eligibility criteria would also have a more prominent impact on the coverage of households with children, among which the number of eligible households would increase by 34.5%, from 145,000 to 195,000, under Models 2 and 4. In contrast, these two models would increase the number of eligible households without children by only 25.1%, from 271,000 to 339,000.

When analyzed by type of housing, less restrictive eligibility criteria would have a stronger impact on households living in subsidized sale flats, where the number of eligible households would increase by 36.7%, from 60,000 to 82,000; those living in private housing quarters would rise 30.6%, from 121,000 to 158,000; and those in public rental housing by 25.3%, from 229,000 to 287,000. Among those living in private housing, the effect of less restrictive income limits is higher on owener occupiers than rental tenants. The number of eligible owner occupier increases by 31.6% from 79,000 to 104,000 while that of rental tenants increases by 24.4% from 34,000 to 45,000.

Table 6.3(a): Estimated annual cost and potentially beneficiary households by different models of Work Incentive Transport Subsidy in Hong Kong, Q3 2011.

Measure/ variable		Model					
		1	2	3	4	5	6
Estimated expenditure	($ million)	15,696	12,630	8,984	9,116	6453	3,490
Working Household	All	864000	534000	416000	534000	416000	416000
Household income	<50%	155000	155000	154000	155000	154000	154000
	50-80%	369000	369000	259000	369000	259000	259000
	80%>	340000	10000	3000	10000	3000	3000
Size of household	1	46000	52000	29000	52000	29000	29000
	2	175000	129000	129000	129000	129000	129000
	3	255000	134000	134000	134000	134000	134000
	4	258000	143000	75000	143000	75000	75000
	5+	130000	76000	49000	76000	49000	49000
Whether having child member	Yes	244000	195000	145000	195000	145000	145000
	No	620000	339000	271000	339000	271000	271000
Type of housing	PRH	415000	287000	229000	287000	229000	229000
	HOS	165000	82000	60000	82000	60000	60000
	Private	276000	158000	121000	158000	121000	121000
	Others	8000	7000	6000	7000	6000	6000
Tenure of accommodation	Owner Occupier	192000	104000	79000	104000	79000	79000
	Tenant	70000	45000	34000	45000	34000	34000
	Others	14000	9000	8000	9000	8000	8000

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.

Note. i. Q3 2011: Quarter 3rd 2011

ii. Working households are defined as those with at least one working household member.

iii. Subject to round-off error.

6.2.3. Persons Living in Potential Bbeneficiary Households

In line with our previous analysis on a household basis, the coverage of Model 1 at the individual level would be the highest among the proposed WITS models, at 2.88 million. In addition, our analysis shows that more than 43% of persons (n=1.2 million) living in potential beneficiary households under Model 1 are not at risk of poverty (households earning more than 80% of median income), which illustrates this model may not be fair in light of the objective of supporting the working poor in Hong Kong and reducing poverty.

Among the models that adopt a single assessment scheme, it is generally observed that those with less restrictive income limits (Models 2 and 4) would be more likely to increase coverage of households marginally beyond the risk-of-poverty threshold (50-80%) by 56.8%, from 704,000 to 1.1 million. When further analyzed by sex and age, less restrictive income limits would have the greatest impact on younger females (aged below 15) in terms of the scheme's coverage, at 40.4%, from 94,000 to 132,000,

followed by younger males at 35.5% from 107,000 to 145,000.

As the principal beneficiaries, it is estimated that more than 1.6 million low-paid employed persons could be eligible for the proposed WITS scheme under Model 1, which coverage would be 124.8% higher than Models 2 and 4, at 709,000, and 214.4% higher than that of Models 3, 5 and 6, at 507,000. If we compare only the models adopting single assessment schemes (Models 2 – 6), less restrictive income limits would have a stronger impact on the increased coverage of sales and service workers, at 46.9%, from 113,000 to 166,000, than on elementary occupation workers, at 31.2%, from 154,000 to 202,000.

Table 6.3(b): Persons living in potentially beneficiary households by different models of Work Incentive Transport Subsidy in Hong Kong, Q3 2011.

Measure/ variable		Model					
		1	2	3	4	5	6
Person in working household	All	2886000	1689000	1246000	1689000	1246000	1246000
Household income	<50%	540000	539000	537000	539000	537000	537000
	50-80%	1101000	1104000	704000	1104000	704000	704000
	80%>	1245000	46000	5000	46000	5000	5000
Sex and age	M (below 15)	177000	145000	107000	145000	107000	107000
	M (15-64)	1117000	593000	428000	593000	428000	428000
	M (>65)	127000	88000	71000	88000	71000	71000
	F (below 15)	158000	132000	94000	132000	94000	94000
	F (15-64)	1188000	641000	473000	641000	473000	473000
	F (>65)	119000	90000	73000	90000	73000	73000
Employed person	All	1594000	709000	507000	709000	507000	507000
Occupation	Sales and service worker	379000	166000	113000	166000	113000	113000
	Elementary occupation	398000	202000	154000	202000	154000	154000
	Others	816000	341000	240000	341000	240000	240000

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

6.3. **Possible Consequences of Various Models of Reformed WITS Schemes on Reducing the Number of Working Poor in Hong Kong**

Tables 6.4(a), 6.4(b) and 6.4(c) show the possible consequences of various models of reformed WITS schemes on poverty reduction among working households in Hong Kong. Similar to the previous chapters, 50% of equivalized median household income was adopted as the poverty threshold in this analysis. Unexpectedly, though Model 1 is the most expensive model in our proposal, it was found that it would not be the most effective, reducing the number of working households at risk of poverty by only 54.8% (n=88,000), from 8.4% to 3.8% (see Tables 6.4(a) and 6.4(a1)). Further, it was found that Model 1 would reduce the overall poverty rate by 18.9%, from 19.6% to 15.9%. For individuals, Model 1 would reduce the number of persons living in poverty by 321,000, reducing the working poverty rate (for individuals) by 58%, from 9.4% to 4.0%, and reducing the overall poverty rate by 29.7%, from 16.3% to 11.4%

In contrast, Models 2 and 3 (with a single assessment scheme) would reduce the number of poor working households by 90,000, or 56%, which would reduce the working poverty rate to 3.7%. In other words, the overall poverty rate could be reduced to 15.8% (see Tables 6.4(a) and 6.4(a1).

Also, it was observed that adopting less restrictive income limits would make no difference in terms of poverty reduction at different levels with Models 2 and 3. At the individual level, it is estimated that both Models 2 and 3 would reduce the number of poor persons by 323,000, about 58.4% of persons in working households. This would help reduce the working poverty rate from 9.4% to 3.9% and also the overall poverty rate from 16.3% to 11.4%. (See Table 6.4c and Table 6.4(c1))

Apart from the dual assessment scheme, the marginal effect of introducing additional work-hour tiers and a child allowance is illustrated in Table 6.4(a) and Table 6.4(a1).The tables show that the introduction of a child allowance would strongly impact poverty reduction among working and all households when the figures for Models 2 and 3 are compared with the figures for Models 4 and 5. As the proposed child allowance is not included in Models 4 and 5, it is estimated that these models could only reduce the number of households in poverty by 63,000, about 39.2% of poor working households. Thus the working poverty rate would drop from 8.4% to 5.1%, and the overall poverty rate from 19.6% to 17.0%. Similar to the comparison of Models 2 and 3, no marked difference was found between Models 4 and 5, which suggests that adopting less restrictive income limits would have no major impact on poverty reduction, though it would benefit more households marginally above the poverty threshold.

Aside from the proposed child allowance, the figures suggest that the introduction of additional

work-hour tiers would have a prominent impact on poverty reduction. Comparing the current WITS scheme in Model 6 with Models 4 and 5, the introduction of additional work-hour tiers would not only strengthen the work incentive for low-paid workers, but also reduce the number of poor households by an additional 27,000 (from 63,000-36,000) in our estimation. This suggests the initiative would increase the rate of working poverty reduction by 16.8 percentage points, from 22.4% to 39.2%. In terms of overall poverty reduction, the respective initiative would increase the estimated impact by 5.9 percentage points, from 7.7% to 13.6%.

In brief, it was found that both the introduction of a child allowance and of additional work-hour tiers would have prominent impacts on various sub-groups in our analysis.

Marginal Effect of Introducing Work-hour Tiers on Subgroups of Households and Population

First, when analyzed by size of household, it is estimated that the introduction of additional work-hour tiers would have a more prominent impact on smaller households. Comparing the estimates for Models 4 and 5 with those for Model 6, the reduction in number of poor households would increase from almost nil to 12,000 for two-person households and from about 1,000 to 12,000 for three-person households (see Table 6.4(a). Thus, the rate of working poverty reduction for two-person households would increase by 45.6 percentage points from almost nil, while the corresponding figure for three-person households would be an increase of 26.7 percentage points, from 2.4% to 29.1%. This implies that the post-WITS adjustment working poverty rate would drop from 5.9% to 3.2% for two-person households and from 6.9% to 5.0% for three-person households if this initiative were introduced (see Table 6.4(a1). In addition, the initiative would increase the rate of overall poverty reduction by 8.5 percentage points from almost nil for two-person households and by 16.2 percentage points from 1.5% to 17.7% (see Table 6.4(a)). This indicates that post-WITS, the overall poverty rate would be reduced from 22.9% to 21.0% for two-person households and from 10.7% to 8.9% for three-person households (see Table 6.4(a1)).

When analyzed by type of housing, it is estimated that the introduction of additional work-hour tiers would most strongly impact households living in public rental housing (an increase of 80% from 20,000 to 36,000) and subsidized sale flats (at 80% from 5,000 to 9,000), compared to those living in private housing, at 54.5%, from 11,000 to 17,000. Similarly, in terms of poverty rate reduction, this initiative would have the strongest impact on those living in subsidized sale flats, which would increase the rate of working poverty reduction by 21.5 percentage points, from 26.9% to 48.4%, and the rate of overall poverty reduction by 8.0 percentage points, from 9.9% to 17.9% (see Table 6.4(a)). This initiative would further reduce the post-WITS adjustment working poverty rate for this specific group from 4.1% to 2.9%, and the post-adjustment overall poverty rate from 11.9% to 10.8% (see Table 6.4(a1)).

The second most impacted group would be those living in public rental housing, among whom the rate of

working poverty reduction would increase by 16.7 percentage points, from 20.9% to 37.6%, and the rate of overall poverty reduction by 6.6 percentage points, from 8.2% to 14.8% (see Table 6.4(a)). This indicates the post-adjustment working poverty rate for this group would be further reduced, from 14.4% to 11.4%, and the overall poverty rate from 30.6% to 28.4% (see Table 6.4(a1)), if this initiative were introduced into the current WITS scheme.

This initiative would have the least impact on households living in private housing, among whom the rate of working poverty reduction would increase by 13.9 percentage points, from 25.3% to 39.2%, and the rate of overall poverty reduction would increase by 3.6 percentage points, from 6.8% to 10.4% (see Table 6.4(a)). In other words, the post-adjustment working poverty rate for this group would be reduced from 3.1% to 2.5% and the overall poverty rate from 12.3% to 11.8%

Among those living in private housing, it is estimated that the introduction of additional work-hour tiers would most strongly impact owner occupiers, where the number of reduced poor households would increase by 83.3%, from 6,000 to 11,000. In contrast, the impact of this initiative on tenants would be comparatively weaker, at 25%, from 4,000 to 5,000.

In terms of possible impacts on poverty, it is estimated that the introduction of additional work-hour tiers would increase the rate of working poverty reduction by 17.7 percentage points, from 21.3% to 39.0%, for owner occupiers. At the same time, the introduction of additional work-hour tiers would increase the rate of overall poverty reduction by 3.4% percentage points, from 4.1% to 7.5%, for owner occupiers (see Table 6.4(a)). This implies the post-adjustment working poverty rate would be reduced from 3.0% to 2.4% and the overall poverty rate from 16.3% to 15.8% (see Table 6.4(a1)).

The same figures for tenants would be comparatively weaker in our estimation. The initiative would increase the rate of working poor reduction by 8.9 percentage points, from 35.7% to 44.6%, and the impact on overall poverty reduction would be even less prominent, a reduction of 2.6 percentage points, from 10.6% to 13.2% (see Table 6.4(a)). This indicates the post-adjustment rate would further reduce working poverty from 2.8% to 2.4%, and overall poverty from 11.7% to 11.3% (see Table 6.4(a1)).

At the individual level, it is estimated that the introduction of additional work-hour tiers would more strongly impact older adults compared to other age groups (see Table 6.4(c)). It is estimated that the reduction in number of older males living in poverty (aged 65 or above) would increase by 250%, from 2,000 to 7,000, and for females by 167%, from 3,000 to 8,000. In contrast, the corresponding figures for younger persons would be far less prominent, an increase of 1,000 for both sexes, to 29,000 for males and 26,000 for females. In terms of the rate of working poverty reduction, it is estimated that the initiative would have a stronger impact on older males, an increase of 22.4 percentage points, from 8.9% to 31.3%, and on working-age females (15-64), which would increase by 27.5 percentage points from

22.0% to 39.5% (see Table 6.4(c)). In other words, the post-adjustment working poverty rate would be reduced from 9.0% to 6.7% for older males and from 6.5% to 5.1% for working-age females (see Table 6.4(c1)).

In further examining the rate of overall poverty reduction, the initiative would have a stronger impact on the working-age group, an increase of 9.6 percentage points, from 16.5% to 26.1%, for males and of 10.6%, from 13.3% to 23.9%, for females (see Table 6.4(c)).This implies the post-adjustment overall poverty rate would decrease from 9.1% to 8.1% for working-age males and from 11.1% to 9.8% for working-age females (see Table 6.4(c1)).

6.3.1. Marginal Effect of Combining Child Allowance and Additional Work-hour Tiers on Poverty Reduction

The last section showed that the introduction of additional work-hour tiers would bring a marked improvement on both working poor and overall poverty reduction. Yet further investigation of the profile of poor households and persons to be impacted by this scheme reveals that this initiative alone may not be sufficient, while not every sector (especially larger households and younger persons) would benefit from the scheme. Therefore, we also investigated whether introducing a child allowance for every qualifying household would have a more balanced impact on poverty reduction in the subsequent section.

When analyzed by size of household (see Table 6.4(a)), it is estimated that the introduction of a child allowance would most strongly impact larger households. In comparing the estimated impacts of Models 2 and 3 with those of Models 4 and 5, the number of reduced poor households would increase by 325%, from 4,000 to 17,000 for households with more than five persons. Concurrently, this initiative would further increase the reduction in working poor three-person households by 91.7%, from 12,000 to 23,000, while the impact on two-person households would be less considerable at 16.7%, from 12,000 to 14,000. Thus, the rate of working poverty reduction for households with five persons or above would increase by 46.6 percentage points, from 14.3% to 60.9%, while the corresponding figure for two-person households would be an increase of 7.6 percentage points, from 45.6% to 53.2%, and for three-person households of 26.7 percentage points, from 29.1% to 55.8% (See Table 6.4(a). This indicates the post–WITS working poverty rate would be further reduced, from 3.2% to 2.8% for two-person households, from 5.0% to 3.1% for three-person households and from 12.2% to 5.6% for households with five persons or above.

In addition, it is estimated that introducing a child allowance would increase the rate of overall poverty reduction by 1.4 percentage points, from 8.5% to 9.9% for two-person households, by 16.3 percentage points from 17.7% to 34.0% for three-person households and by 39.4 percentage points from 12.1% to 51.5% for households with five persons or above (See Table 6.4(a)). This implies that the

post-adjustment overall poverty rate would decrease from 21.0% to 20.7% for two-person households, from 8.9% to 7.2% for three-person households and from 14.3% to 7.9% for households with five persons or above (See Table 6.4(a1)).

When analyzed by type of household (see Table 6.4(a)), it is estimated that the introduction of a child allowance would most strongly impact households with children. Comparing the estimates for Models 2 and 3 with those of Models 4 and 5, the number of reduced poor households with children would increase by 66.4%, from 36,000 to 59,900, while the possible impact on households with no children would be less considerable, at 10.6%, from 27,300 to 30,200. Thus, the rate of working poverty reduction for households with children would increase by 26.1 percentage points, from 39.4% to 65.5%, while the corresponding figure for households with no children would increase by 4.2 percentage points, from 39.4% to 43.6%. This indicates the post–WITS working poverty rate would be reduced from 9.9% to 5.7% for households with children, but only from 3.1% to 2.9% for households with no children.

When analyzed by type of housing, it is estimated that the introduction of a child allowance from additional work-hour tiers would pose a stronger impact on households living in public rental housing (an increase of 50%, from 36,000 to 54,000) and private housing (35.3%, from 17,000 to 23,000), compared to those living in subsidized sale flats, at 33.3%, from 9,000 to 12,000. In terms of change in poverty reduction rate, this initiative would have the strongest impact on those living in public rental housing, which would increase the rate of working poverty reduction by 18.8 percentage points from 37.6% to 56.4% and the rate of overall poverty reduction by 7.4 percentage points, from 14.8% to 22.2% (see Table 6.4(a)). This initiative would further reduce the post-WITS adjustment working poverty rate for this specific group from 11.4% to 7.9%, and the post-adjustment overall poverty rate from 28.4% to 25.9% (see Table 6.4(a1)).

Subsequently, those living in subsidized sale flats would rank second, which would increase the rate of working poverty reduction by 16.1 percentage points, from 48.4% to 64.5%, and the rate of overall poverty reduction by 5.9 percentage points, from 17.9% to 23.8% (see Table 6.4(a)). This indicates the post-adjustment working poverty rate for this specific group would be reduced from 2.9% to 2.0%, and the overall poverty rate from 10.8% to 10.1% (see Table 6.4(a1)).

Finally, the initiative would have the least impact on households living in private housing, among whom working poverty reduction would increase by 13.8 percentage points, from 39.2% to 53.0%. Also, the rate of overall poverty reduction would increase by 3.7 percentage points, from 10.4% to 14.1% (see Table 6.4(a)). This indicates that the post-adjustment working poverty rate for this specific group would be reduced from 2.5% to 1.9%, and the over all poverty rate from 11.8% to 11.3% (see Table 6.4(a1)).

Among those living in private housing, it is estimated that the introduction of a child allowance would

have a stronger impact on owner occupiers, where the number of reduced poor households would increase by 36.4%, from 11,000 to 15,000. In contrast, the impact of this initiative on tenants would be comparatively weaker, at 20%, from 5,000 to 6,000.

In terms of possible impacts, it is estimated that the introduction of a child allowance would increase the rate of working poverty reduction by 14.2 percentage points, from 39.0% to 53.2%, for owner occupiers. At the same time, the introduction of a child allowance would increase the rate of overall poverty reduction by 2.7 percentage points, from 7.5% to 10.2%, for owner occupiers (see Table 6.4(a)). This implies the post-adjustment working poverty rate would be reduced from 2.4% to 1.8% and the overall poverty rate from 15.8% to 15.3% (see Table 6.4(a1)).

In contrast, the figures for tenants would be weaker. It is estimated that among this group the initiative would increase the rate of working poverty reduction by 9.0 percentage points, from 44.6% to 53.6%, and the rate of overall poverty reduction by 2.6 percentage points, from 13.2% to 15.8% (see Table 6.4(a)). This indicates the post-adjustment rate would be reduced from 2.4% to 2.0% for working poverty and from 11.3% to 11.0% for overall poverty (see Table 6.4(a1)).

At the individual level, the introduction of a child allowance would most strongly impact younger persons compared to other age groups (see Table 6.4(c)). It is estimated that this initiative would increase poverty reduction among younger males (aged under 15) by 62.1%, from 29,000 to 47,000, and for females by 57.7%, from 26,000 to 41,000. In contrast, the corresponding figures for working-age persons would be less prominent, an increase of 42.6%, from 68,000 to 97,000, for males and 45.6%, from 79,000 to 115,000, for females.

When analyzed by the rate of working poverty reduction, it is estimated that this initiative would have a stronger impact on the younger group, among whom the rate of working poverty reduction would increase by 24.8 percentage points, from 40.0% to 64.8% for males, and by 23.4 percentage points, from 40.6% to 64.0%, for females (See Table 6.4(c)). This indicates the post-adjustment rate for this sub-group would be reduced from 11.0% to 6.5 for younger males and from 10.4% to 6.3 for younger females (see Table 6.4(c1)).

Further examination of the impact of this initiative on overall poverty reduction shows it would have the strongest impact on the younger group, where the rate of overall poverty reduction would increase by 19.1 percentage points, from 30.9% to 50.0% for males and by 17.0%, from 29.4% to 46.4% for females (see Table 6.4(c)). This suggests that the post-adjustment overall poverty rate would further drop, from 15.2% to 11.0 for younger males and from 15.7% to 11.9 for younger females, if the proposed child allowance and the additional work-hour tiers were both introduced into the present WITS scheme of Hong Kong (see Table 6.4(c1)).

Table 6.4(a): Estimated number and percentage decreased in working and all at-risk-of-poverty household (with household income below 50% of equvialized median) in Hong Kong by model of WITS, Q3 2011

Variable	Nature of variable		Model					
			1	2	3	4	5	6
Overall		#	88000	90000	90000	63000	63000	36000
		% change in working poverty	54.8	56	56	39.2	39.2	22.4
		% change in all poverty	18.9	19.4	19.4	13.6	13.6	7.7
Size of household	1	#	-	2000	2000	2000	2000	-
		% change in working poverty	-	18.2	18.2	18.2	18.2	-
		% change in all poverty	-	1.3	1.3	1.3	1.3	-
	2	#	14000	14000	14000	12000	12000	-
		% change in working poverty	53.2	53.2	53.2	45.6	45.6	-
		% change in all poverty	9.9	9.9	9.9	8.5	8.5	-
	3	#	23000	23000	23000	12000	12000	1000
		% change in working poverty	55.8	55.8	55.8	29.1	29.1	2.4
		% change in all poverty	34.0	34.0	34.0	17.7	17.7	1.5
	4	#	34000	34000	34000	34000	34000	34000
		% change in working poverty	62.6	62.6	62.6	62.6	62.6	62.6
		% change in all poverty	52.0	52.0	52.0	52.0	52.0	52.0
	5+	#	17000	17000	17000	4000	4000	1000
		% change in working poverty	60.9	60.9	60.9	14.3	14.3	3.6
		% change in all poverty	51.5	51.5	51.5	12.1	12.1	3.0
Type of Household	Without child	#	27600	30200	30200	27300	27300	1500
		% change in working poverty	39.8	43.6	43.6	39.4	39.4	2.2
		% change in all poverty	8.1	8.8	8.8	8.0	8.0	0.4
	With child	#	59900	59900	59900	36000	36000	34600
		% change in working poverty	65.5	65.5	65.5	39.4	39.4	37.9
		% change in all poverty	48.6	48.6	48.6	29.2	29.2	28.1
Type of housing	PRH	#	52000	54000	54000	36000	36000	20000
		% change in working poverty	54.3	56.4	56.4	37.6	37.6	20.9
		% change in all poverty	21.4	22.2	22.2	14.8	14.8	8.2
	HOS	#	12000	12000	12000	9000	9000	5000
		% change in working poverty	64.5	64.5	64.5	48.4	48.4	26.9
		% change in all poverty	23.8	23.8	23.8	17.9	17.9	9.9
	Private	#	22000	23000	23000	17000	17000	11000
		% change in working poverty	50.7	53	53	39.2	39.2	25.3
		% change in all poverty	13.5	14.1	14.1	10.4	10.4	6.8
Tenure of accommodation	OO	#	14000	15000	15000	11000	11000	6000
		% change in working poverty	49.6	53.2	53.2	39	39	21.3
		% change in all poverty	9.5	10.2	10.2	7.5	7.5	4.1
	Tenant	#	6000	6000	6000	5000	5000	4000
		% change in working poverty	53.6	53.6	53.6	44.6	44.6	35.7
		% change in all poverty	15.8	15.8	15.8	13.2	13.2	10.6
	Others	#	2000	2000	2000	1000	1000	1000
		% change in working poverty	48.8	48.8	48.8	24.4	24.4	24.4
		% change in all poverty	9.6	9.6	9.6	4.8	4.8	4.8

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

Table 6.4 (a1): Poverty rate (with household income below 50% of equivalized median) of all and working households in Hong Kong before and after WITS and after WITS adjustment by various socioeconomic correlates

		Before adjustment	After WITS adjustment					
			1	2	3	4	5	6
All household	All	19.6	15.9	15.8	15.8	17.0	17.0	18.1
Size of household	1	38.1	38.1	37.6	37.6	37.6	37.6	38.1
	2	22.9	20.7	20.7	20.7	21.0	21.0	22.9
	3	10.9	7.2	7.2	7.2	8.9	8.9	10.7
	4	12.8	6.1	6.1	6.1	6.1	6.1	6.1
	5+	16.2	7.9	7.9	7.9	14.3	14.3	15.7
Type of household	Without child	20.4	18.8	18.6	18.6	18.8	18.8	20.3
	With child	19.3	9.7	9.7	9.7	13.6	13.6	13.8
Type of housing	PRH	33.3	26.2	25.9	25.9	28.4	28.4	30.6
	HOS	13.2	10.1	10.1	10.1	10.8	10.8	11.9
	Private	13.2	11.4	11.3	11.3	11.8	11.8	12.3
Tenure of accommodation	Owner occupier	17.0	15.4	15.3	15.3	15.8	15.8	16.3
	Tenant	13.0	11.0	11.0	11.0	11.3	11.3	11.7
	Others	26.5	23.9	23.9	23.9	25.2	25.2	25.2
Working household		8.4	3.8	3.7	3.7	5.1	5.1	6.5
Size of household	1	5.5	5.5	4.5	4.5	4.5	4.5	5.5
	2	5.9	2.8	2.8	2.8	3.2	3.2	5.9
	3	7.1	3.1	3.1	3.1	5.0	5.0	6.9
	4	10.9	4.1	4.1	4.1	4.1	4.1	4.1
	5+	14.2	5.6	5.6	5.6	12.2	12.2	13.7
Type of household	Without child	5.1	3.1	2.9	2.9	3.1	3.1	5.0
	With child	16.4	5.7	5.7	5.7	9.9	9.9	10.2
Type of housing	PRH	18.2	8.3	7.9	7.9	11.4	11.4	14.4
	HOS	5.5	2.0	2.0	2.0	2.9	2.9	4.1
	Private	4.1	2.0	1.9	1.9	2.5	2.5	3.1
Tenure of accommodation	Owner occupier	3.9	2.0	1.8	1.8	2.4	2.4	3.0
	Tenant	4.3	2.0	2.0	2.0	2.4	2.4	2.8
	Others	6.8	3.5	3.5	3.5	5.1	5.1	5.1

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

Table 6.4(b): Estimated number and percentage decreased in working and all at-risk-of-poverty household (with household income below 60% of median) in Hong Kong by model of WITS, Q3 2011

Variable	Nature of variable		Model					
			1	2	3	4	5	6
All		#	114000	114000	113000	99000	98000	88000
		% change in working poverty	40.2	40.2	39.9	34.9	34.6	31.1
		% change in all poverty	17.6	17.6	17.5	15.3	15.2	13.6
Size of household	1	#	19000	19000	19000	19000	19000	19000
		% change in working poverty	62.3	62.3	62.3	62.3	62.3	62.3
		% change in all poverty	8.9	8.9	8.9	8.9	8.9	8.9
	2	#	36000	36000	36000	33000	33000	32000
		% change in working poverty	57	57	57	52.2	52.2	50.6
		% change in all poverty	18.4	18.4	18.4	16.8	16.8	16.3
	3	#	33000	33000	33000	33000	33000	32000
		% change in working poverty	44.1	44.1	44.1	44.1	44.1	42.7
		% change in all poverty	31.6	31.6	31.6	31.6	31.6	30.6
	4	#	16000	16000	16000	6000	6000	0
		% change in working poverty	21	21	21	7.9	7.9	0
		% change in all poverty	18.0	18.0	18.0	6.7	6.7	0.0
	5+	#	10000	10000	9000	8000	7000	4000
		% change in working poverty	25.9	25.9	23.3	20.7	18.1	10.4
		% change in all poverty	22.8	22.8	20.5	18.2	15.9	9.1
Type of housing	PRH	#	93000	93000	92000	84000	84000	77000
		% change in working poverty	48.6	48.6	48.1	43.9	43.9	40.2
		% change in all poverty	27.0	27.0	26.7	24.4	24.4	22.4
	HOS	#	16000	16000	16000	14000	14000	12000
		% change in working poverty	43	43	43	37.6	37.6	32.3
		% change in all poverty	21.5	21.5	21.5	18.8	18.8	16.1
	Private	#	40000	41000	40000	36000	36000	34000
		% change in working poverty	46.1	47.2	46.1	41.5	41.5	39.2
		% change in all poverty	18.5	19.0	18.5	16.7	16.7	15.8
Tenure of accommodation	OO	#	26000	26000	25000	23000	22000	21000
		% change in working poverty	46.1	46.1	44.3	40.8	39	37.2
		% change in all poverty	17.2	17.2	16.5	15.2	14.5	13.9
	Tenant	#	11000	11000	11000	9000	9000	9000
		% change in working poverty	49.1	49.1	49.1	40.2	40.2	40.2
		% change in all poverty	25.3	25.3	25.3	20.7	20.7	20.7
	Others	#	4000	4000	4000	4000	4000	4000
		% change in working poverty	48.8	48.8	48.8	48.8	48.8	48.8
		% change in all poverty	18.8	18.8	18.8	18.8	18.8	18.8

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.

Note. i. Q3 2011: Quarter 3rd 2011

ii. Working households are defined as those with at least one working household member.

iii. Subject to round-off error.

Table 6.4 (b1): Poverty rate (with household income below 60% of equivalized median) of all and working households in Hong Kong before and after WITS and after WITS adjustment by various socioeconomic correlates

		Before adjustment	After WITS adjustment					
			1	2	3	4	5	6
All household	All	27.3	22.5	22.5	22.5	23.1	23.1	23.6
Size of household	1	51.5	46.9	46.9	46.9	46.9	46.9	46.9
	2	31.8	25.9	25.9	25.9	26.5	26.5	26.6
	3	16.8	11.5	11.5	11.5	11.5	11.5	11.7
	4	17.3	14.2	14.2	14.2	16.2	16.2	17.3
	5+	21.5	16.6	16.6	17.1	17.6	18.1	19.5
Type of housing	PRH	47.1	34.4	34.4	34.5	35.6	35.6	36.5
	HOS	19.5	15.3	15.3	15.3	15.8	15.8	16.4
	Private	17.5	14.2	14.1	14.2	14.5	14.5	14.7
Tenure of accommodation	Owner occupier	17.5	14.5	14.5	14.6	14.8	14.9	15.0
	Tenant	15.0	11.2	11.2	11.2	11.9	11.9	11.9
	Others	27.0	21.9	21.9	21.9	21.9	21.9	21.9
Working household		14.7	8.8	8.8	8.9	9.6	9.6	10.2
Size of household	1	15.1	5.7	5.7	5.7	5.7	5.7	5.7
	2	14.2	6.1	6.1	6.1	6.8	6.8	7.0
	3	12.8	7.2	7.2	7.2	7.2	7.2	7.4
	4	15.4	12.1	12.1	12.1	14.2	14.2	15.4
	5+	19.7	14.6	14.6	15.1	15.6	16.1	17.6
Type of housing	PRH	30.7	15.8	15.8	15.9	17.2	17.2	18.4
	HOS	11.1	6.3	6.3	6.3	6.9	6.9	7.5
	Private	7.6	4.1	4.0	4.1	4.5	4.5	4.6
Tenure of accommodation	Owner occupier	6.8	3.7	3.7	3.8	4.1	4.2	4.3
	Tenant	9.1	4.6	4.6	4.6	5.4	5.4	5.4
	Others	10.7	5.5	5.5	5.5	5.5	5.5	5.5

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

6.5. Concluding Remarks

Since the current WITS scheme is an existing social policy that aims to relieve the burden of low-income households with employed members, it would be both easier and politically viable to advocate moderate modification of this scheme.

The major limitations of the current WITS scheme are 1) the small amounts of work subsidies for poverty reduction; (2) the restrictive eligibility criteria for the scheme; (3) the narrow objectives of the scheme.

To address these limitations, four reform initiatives were proposed, including (1) introducing additional work-hour tiers; (2) introducing a child allowance for qualifying households; (3) adopting less restrictive income and assets limits; (4) introduce a dual-assessment scheme.

Analysis shows that the number of households at risk of poverty would be reduced by 50% if a child allowance and additional work-hour tiers were introduced, along with less restrictive eligibility criteria.

Dual assessment would further broaden the coverage of the scheme, but would include a sizable number of low-income workers from households that are not at risk of poverty.

In terms of overall poverty reduction, it is estimated that Models 2 and 3 would have the greatest impact. The overall poverty rate would drop from 19.6% to 15.9% at the household level and from 16.3% to 11.4% at the individual level.

At the household level, larger households, households living in public housing and rental tenants (among those living in private housing) would be most likely to benefit from the scheme.

At the individual level, children under 15 would benefit most from the introduction of a child allowance for low-income families.

Older persons are not likely to benefit from this scheme, except those living with working adults and children.

Our analysis leads to the recommendation that the government should consider introducing both a child allowance and additional work-hour tiers in future reforms of the Work Incentive Transport Scheme, which would maximize its impact in reducing poverty overall and among working households in a more balanced and equitable way compared to other models.

Our study shows that adopting less restrictive income limits would have comparatively less impact on poverty reduction, though it would provide broader coverage of households that are marginally above the poverty threshold.

Table 6.4(c): Estimated number percentage decreased in persons living in at-risk-of-poverty working household in Hong Kong by household income and model of WITS, Q3 2011

Variable	Nature of variable		Model					
			1	2	3	4	5	6
All (<50%)		#	321000	323000	323000	218000	218000	145000
		% change in working poverty	58.0	58.4	58.4	39.4	39.4	26.2
		% change in all poverty	29.7	29.9	29.9	20.2	20.2	13.4
Sex and age	M (<15)	#	47000	47000	47000	29000	29000	28000
		% change in working poverty	64.8	64.8	64.8	40.0	40.0	38.6
		% change in all poverty	50.0	50.0	50.0	30.9	30.9	29.8
	M (15-64)	#	96000	97000	97000	68000	68000	43000
		% change in working poverty	55.9	56.5	56.5	39.6	39.6	25.1
		% change in all poverty	36.9	37.2	37.2	26.1	26.1	16.5
	M (>65)	#	11000	11000	11000	7000	7000	2000
		% change in working poverty	49.1	49.1	49.1	31.3	31.3	8.9
		% change in all poverty	7.9	7.9	7.9	5.0	5.0	1.4
	F (below 15)	#	41000	41000	41000	26000	26000	25000
		% change in working poverty	64.0	64.0	64.0	40.6	40.6	39.0
		% change in all poverty	46.4	46.4	46.4	29.4	29.4	28.3
	F (15-64)	#	113000	115000	115000	79000	79000	44000
		% change in working poverty	56.5	57.5	57.5	39.5	39.5	22.0
		% change in all poverty	34.2	34.8	34.8	23.9	23.9	13.3
	F (>65)	#	12000	12000	12000	8000	8000	3000
		% change in working poverty	52.4	52.4	52.4	34.9	34.9	13.1
		% change in all poverty	7.2	7.2	7.2	4.8	4.8	1.8
All (<60%)		#	524000	524000	515000	463000	454000	412000
		% change in working poverty	58.5	58.5	57.5	51.7	50.7	46.0
		% change in all poverty	34.7	34.7	34.1	30.6	30.0	27.2
Sex and age	M (<15)	#	77000	77000	75000	67000	66000	62000
		% change in working poverty	74.0	74.0	72.1	64.4	63.5	59.6
		% change in all poverty	59.4	59.4	57.9	51.7	50.9	47.8
	M (15-64)	#	156000	156000	154000	136000	134000	118000
		% change in working poverty	53.1	53.1	52.4	46.3	45.6	40.2
		% change in all poverty	39.1	39.1	38.6	34.1	33.6	29.6
	M (>65)	#	19000	19000	18000	17000	17000	15000
		% change in working poverty	52.1	52.1	49.3	46.6	46.6	41.1
		% change in all poverty	10.9	10.9	10.4	9.8	9.8	8.6
	F (below 15)	#	67000	67000	66000	60000	58000	54000
		% change in working poverty	71.8	71.8	70.7	64.3	62.2	57.9
		% change in all poverty	55.4	55.4	54.5	49.6	47.9	44.6
	F (15-64)	#	186000	186000	183000	165000	162000	146000
		% change in working poverty	56.2	56.2	55.3	49.8	48.9	44.1
		% change in all poverty	38.8	38.8	38.2	34.4	33.8	30.4
	F (>65)	#	20000	20000	19000	18000	18000	17000
		% change in working poverty	53.2	53.2	50.5	47.9	47.9	45.2
		% change in all poverty	9.5	9.5	9.0	8.6	8.6	8.1

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

Table 6.4 (c1): Poverty rate of persons living in all and working households before and after WITS and after WITS adjustment by various socioeconomic correlates

Household income			Before adjustment	After WITS adjustment					
				1	2	3	4	5	6
<50%	Person (all household)		16.3	11.4	11.4	11.4	13.0	13.0	14.1
	Sex and age	M (<15)	22.0	11.0	11.0	11.0	15.2	15.2	15.5
		M (15-64)	10.9	6.9	6.9	6.9	8.1	8.1	9.1
		M (>65)	35.1	32.3	32.3	32.3	33.3	33.3	34.6
		F (below 15)	22.2	11.9	11.9	11.9	15.7	15.7	15.9
		F (15-64)	12.8	8.4	8.4	8.4	9.8	9.8	11.1
		F (>65)	36.9	34.3	34.3	34.3	35.2	35.2	36.3
	Person (working household)		9.4	4.0	3.9	3.9	5.7	5.7	7.0
		M (<15)	18.4	6.5	6.5	6.5	11.0	11.0	11.3
		M (15-64)	7.6	3.4	3.3	3.3	4.6	4.6	5.7
		M (>65)	9.8	5.0	5.0	5.0	6.7	6.7	9.0
		F (below 15)	17.6	6.3	6.3	6.3	10.4	10.4	10.7
		F (15-64)	8.4	3.6	3.6	3.6	5.1	5.1	6.5
		F (>65)	9.3	4.4	4.4	4.4	6.0	6.0	8.1
<60%	Person (all household)		22.8	14.9	14.9	15.0	15.8	15.9	16.6
	Sex and age	M (<15)	30.4	12.3	12.3	12.8	14.7	14.9	15.9
		M (15-64)	16.7	10.2	10.2	10.3	11.0	11.1	11.8
		M (>65)	43.5	38.7	38.7	39.0	39.2	39.2	39.7
		F (below 15)	30.4	13.5	13.5	13.8	15.3	15.8	16.8
		F (15-64)	18.6	11.4	11.4	11.5	12.2	12.3	12.9
		F (>65)	46.3	41.9	41.9	42.1	42.3	42.3	42.5
	Person (working household)		15.3	6.3	6.3	6.5	7.4	7.5	8.2
		M (<15)	26.4	6.9	6.9	7.4	9.4	9.6	10.7
		M (15-64)	13.0	6.1	6.1	6.2	7.0	7.1	7.8
		M (>65)	16.0	7.7	7.7	8.1	8.5	8.5	9.4
		F (below 15)	25.6	7.2	7.2	7.5	9.1	9.7	10.8
		F (15-64)	13.9	6.1	6.1	6.2	7.0	7.1	7.8
		F (>65)	15.2	7.1	7.1	7.5	7.9	7.9	8.3

Source: Estimation based on data derived from the General Household Survey, Q3, 2011. Census and Statistics Department.
Note. i. Q3 2011: Quarter 3rd 2011
ii. Working households are defined as those with at least one working household member.
iii. Subject to round-off error.

Chapter 7: Assessing the Financial Adequacy of Each Scheme for the Working Poor in Hong Kong

7.1. Introduction

This chapter evaluates the financial feasibility of implementing the proposed work subsidy programme (either the EITC or WITS) for working poor families in Hong Kong. As outlined in Article 107 of the Basic Law of Hong Kong, the SAR Government of Hong Kong must follow the principle of keeping its expenditures within the limits of its revenues in drawing up its budget, and strive to achieve a fiscal balance, avoid deficits and keep the budget commensurate with the growth rate of its gross domestic product. From a social administrative perspective, it is important to appraise whether our current government's revenue and fiscal reserves are adequate to sustain this additional expenditure and evaluate any possible financing options in maintaining a balanced fiscal budget in the longer term.

Undoubtedly, our proposed schemes (whether adopting a three-stage EITC or revising our current WITS scheme) would drastically inflate the annual government expenditure, by HK$3.5 billion (Model 5) to 15.7 billion (Model 1) a year. Thus, two scenarios were drawn up to evaluate the financial feasibility of each proposed scheme under normal condition in terms of economic performance and also the financial sustainability under sluggish conditions.

7.2. Assessing the Financial Feasibility of the Proposed WITS Reform Scheme under Normal Economic Conditions

Thanks to prudent fiscal management and firm control of public expenditure, the Hong Kong SAR Government has consistently achieved a positive budget balance since 2004/05. In addition, closer cooperation with Mainland China in terms of social and economic activities since the establishment of the Mainland and Hong Kong Closer Economic Partnership Agreement has further strengthened the economic fundamentals and also government revenue, allowing more effective strategic measures to help those in need and ensure sustainable development in Hong Kong.

Table 7.1 shows annual government revenues, expenditures and fiscal surplus for 2006/07 – 2010/11. Over the past five years, the SAR Government has achieved a surplus budget with an average of around HK$57,000 million a year.

Table 7.1: Total government revenue, expenditure and surplus (deficit) of Hong Kong for year 2006/07 – 2010/11

	Financial year					5-year average
	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	
Government Revenue	288,014	358,465	316,562	318,442	376,481	331,593
Government Expenditure	229,413	234,814	315,112	289,025	301,360	273,945
Surplus (Deficit) as reported in the cash-based Consolidated Account	58,602	123,650	1,450	25,917	75,121	56,948

Source: Hong Kong Annual Digest of Statistics 2011, Census and Statistics Department of Hong Kong Retrieved May 16 2012, from
http://www.statistics.gov.hk/publication/general_stat_digest/B10100032011AN11B0100.pdf

Table 7.2 shows the additional expenditure and also the cost to surplus ratio for evaluating the fiscal feasibility of each work subsidy scheme. It is estimated that our current fiscal surplus is adequate to fully absorb the additional public spending required to implement our proposed work subsidy schemes for the working poor, although the ratio of Model 1 would be comparatively higher at 21.4%. Given the 100% take-up rate in Q3 2011, it is estimated that the government would incur additional annual expenditure of HK$5,974 million to implement the proposed EITC scheme, which would be equal to 10.5% of the five-year average fiscal surplus, or 2.2% of five-year average government expenditure. In contrast, if the government chose to adopt Model 2 or 3 for the reform of the current WITS scheme, it is estimated that the annual government expenditure would be inflated by HK$9,140 million or HK$5,494 million, which would be equivalent to 16.0% and 9.6% of the five-year average fiscal surplus, or 3.3% or 2.0% of government expenditure.

In evaluating the possible financial burden of the proposed WITS reform initiative, it is worth highlighting that the figure may be overestimated due to the existence of an assets test, which may severely affect the take-up rate of the proposed scheme. Thus, we followed the government's assumption in its previous cost estimation of WITS, that only 50% of eligible households would apply for the scheme[58]. Based on this hypothetical scenario, it is estimated that the additional expenditure of each proposed model would be halved (see Table 7.2), where the additional expenditure for implementing Model 2 and Model 3 would be reduced to HK$4,570 million and HK$2,747 million. In other words, this would greatly alleviate the government's possible financial burden in implementing those schemes, while accounting for only 8.0% and 4.8% of the five-year annual fiscal surplus, or

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[58] Legislative Council Panel on Manpower: Work Incentive Transport Subsidy Scheme. 16 December, 2010. LC Paper No. CB(2)533/10-11(03)

1.7% and 1.0% of five-year average government expenditure.

Table 7.2: Additional Expenditure and Its Relationship with 5-Year Average Fiscal Surplus Ratio

	EITC	WITS				
		1	2	3	4	5
With 100% take-up rate						
Additional expenditure (HK$M)*	5,974	12,206	9,140	5,494	5,626	2,963
5-year average annual Fiscal Surplus (HK$M)	56,948	56,948	56,948	56,948	56,948	56,948
Additional expenditure to 5-year average fiscal surplus ratio (%)	10.5	21.4	16	9.6	9.9	5.2
5-year average annual expenditure (HK$M)	273,945	273,945	273,945	273,945	273,945	273,945
Additional expenditure to 5-year average government expenditure ratio (%)	2.2	4.5	3.3	2.0	2.1	1.1
With 50% take-up rate (WITS)						
Additional expenditure (HK$M)*		6103	4570	2747	2813	1482
5-year average Fiscal Surplus (HK$M)		56948	56948	56948	56948	56948
Additional expenditure to 5-year average fiscal surplus ratio (%)		10.7	8.0	4.8	4.9	2.6
5-year average annual expenditure (HK$M)		273945	273945	273945	273945	273945
Additional expenditure to 5-year average government expenditure ratio (%)		2.2	1.7	1.0	1.0	0.5

1refers to the estimated annual expenditure of each model deducted by the corresponding expenditure of Model 6 (at $3.49 million)
2. 50% take up rate only applies on the 6 models of WITS while the administration of the proposed EITC scheme would be based on the current Inland Revenue mechanism (where no assets test would be applied)

7.3. Assessing the Financial Adequacy of the Proposed Reform of the WITS Scheme During Recessive Economic Conditions

Given the bleak economic prospects in Western economies, the risk of a sharp deterioration of the external environment is apparently increasing and this would inevitably influence the government's economic fundamentals and also the long-term financial sustainability of supporting a revised WITS scheme through government revenue. As a consequence, it is of prime importance to evaluate whether the existing fiscal reserves are adequate to maintain the additional expenditure for the revised WITS scheme under severe recessive economic conditions.

7.3.1. Minimal Level of Fiscal Reserves

According to the latest government report, the fiscal reserves of the SAR Government in 2010/11 reached HK$595,402 million, roughly equivalent to total government expenditures over the corresponding two-year period. In his budget speech of 2002, Anthony Leung Kam-chung, former Financial Secretary of the SAR Government, noted that reserves should equal 12 months of government spending.

In other words, it is suggested that the total of HK$294,042 million[59] (or 11.7 months of government spending) was in excess of the required level in year 2010/11. Apparently, if Hong Kong meets a dramatic economic downturn that brings an annual fiscal deficit of HK$61,747 million (which is the historically highest level in 2002/03), it is necessary to estimate whether the excess fiscal reserves can fully cover the fiscal deficit together with the additional expenditure of our proposed work subsidy scheme for the working poor in Hong Kong.

Table 7.3 highlights the findings of our analysis on the financial sustainability of each subsidy scheme for the working poor in Hong Kong. As Hong Kong has one of the world's largest fiscal reserves, it is estimated that the excess reserves would be adequate to fully absorb the additional expenditure of a work subsidy scheme (even for Model 1) despite a record high deficit for at least four years. To consider the possible consequences of the continued use of an assets test, we have also considered   another hypothetical scenario with a 50% take-up rate for the six proposed WITS schemes, which shows that a lower take-up rate would not likely pose any major impact on the long-term financial sustainability of each scheme.

Table 7.3 The Number of Years for Sustaining the Administration Including Our Proposed Programme in the Worst Economic Scenario

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[59] This figure comes from HK$595,402 million –HK$301,360 million (government expenditure at 2010/2011)

	EITC	WITS				
		1	2	3	4	5
100% take-up rate						
1: Additional expenditure (HK$ M)	5,974	12,206	9,140	5,494	5,626	2,963
2: Record high deficit (HK$ M)	61,747	61,747	61,747	61,747	61,747	61,747
3: Sub-total	67,721	73,953	70,887	67,241	67,373	64,710
4: Excessive fiscal reserve (HK$M)	294,042	294,042	294,042	294,042	294,042	294,042
5: Number of years when the Administration including our proposal could be sustained in the worst scenario	4.3	4.0	4.1	4.4	4.4	4.5
50% take-up rate (WITS only)						
1: Additional expenditure (HK$ M)		6103	4570	2747	2813	1481.5
2: Record high deficit (HK$ M)		61,747	61,747	61,747	61,747	61,747
3: Sub-total		67,850	66,317	64,494	64,560	63,229
4: Excessive fiscal reserve (HK$M)		294,042	294,042	294,042	294,042	294,042
5: Number of years when the Administration including our proposal could be sustained in the worst scenario		4.3	4.4	4.6	4.6	4.7

7.3. Concluding Remarks

Although the cost of implementing an EITC or similar scheme is huge, it is estimated that the current government surplus is adequate to cover the cost.

Assuming the worst economic conditions, it is estimated that current government revenue could sustain any of the proposed schemes for at least four years.

Chapter 8
Recommendation and Conclusion

8.1. The poverty of many working people and their families is a serious social problem in Hong Kong. Though the minimum wage has set a wage floor for low-paid employees and lifted 28.5% of poor workers out of poverty, based on pre-minimum wage levels, still 71.5% of those workers remain trapped in poverty. They may apply for CSSA in the low-income category, but partly due to negative perceptions of CSSA, 88% of poor workers' households living on less than the average CSSA payment for households of corresponding size did not apply for CSSA in Quarter 1 2011. Workers may also apply for the Work Incentive Transport Subsidy to relieve their economic burden. However, WITS provides a limited amount of financial assistance to eligible families while requiring applicants to undergo a cumbersome application procedure, including assessing the income and assets of their family members. Therefore, applications for WITS have been far less than expected.

8.2. To help people at risk of poverty, a range of efforts are needed. Undoubtedly, the establishment of the Minimum Wage Ordinance in May 2011 considerably improved the income of many grassroots workers in Hong Kong. However, the business sector and this measure alone cannot ensure adequate support for poor working families. Since the business sector faces high competition against corporate giants locally and globally, there is a limit to its ability to support the living costs of all its low-paid employees and their families, particularly for small and medium-sized enterprises (SMEs). The Government should play a role in providing financial subsidies to low-income workers' families, particularly those under or near the poverty line, and encouraging the members of poor families to remain in the workforce.

8.3. In further tackling the reality and the risk of poverty, we have suggested that the government should take a proactive role in providing appropriate financial assistance to the working poor in Hong Kong with reference to overseas tax credit schemes. Table 6 shows the expected impacts of implementing an Earned Income Tax Credit scheme or one of various models of a reformed WITS, in terms of expenditure, coverage and poverty reduction. Both a simulated EITC model and Model 2 and 3 of the reformed WITS would perform well. The EITC scheme would have the strongest impact, reducing the number of households at risk of poverty by 22.8%, or about 90,000 people, at a cost at around HK$9.5 billion a year (See Table 8.1). It would also cover the largest number of households (n=537200) whose income is less than 80% of the equivalized median income. One of the second best performer is Model 2, a reformed version of the WITS. They would reduce the number of households at risk of poverty by 19.4%, at a cost of around HK$12.6 billion. It would cover 524,000 households with income generally less than 80% of the equivalized median household income.

8.4. Yet, in the short term the feasibility of the proposed EITC scheme remains questionable. As a relatively new concept for the government, policy lobbyists and most lay persons, the proposed scheme may not be widely accepted. Also, in Hong Kong there is no precedent for using the tax system as a means of providing subsidies to implement social policies. Thus this may require a more comprehensive and extensive public consultation among academics, policy bureaus and other stakeholders, which could take years before these concepts are put into practice. Considering the performance and impacts of each model, we propose:

8.5. Transforming WITS to "Low-Income Working Family Subsidy" in the Short Term

8.5.1. In the short term, we think that reforming the WITS into a Low-Income Working Family Subsidy is the best feasible option, as the administrative framework has already been set up. Since the current WITS is not an effective tool to substantially help poor working families due to its stringent eligibility criteria and small subsidies, we suggest that the government should consider four of our initiatives in the forthcoming review of WITS. These initiatives include:

1. Introducing additional work-hour tiers
2. Introducing a child allowance for qualifying households
3. Adopting less restrictive income limits for public rental housing applications, which target groups of low-income families
4. Adopting less restrictive assets limits or revoking the assets test

8.5.2. **The Government should adopt a model that includes all four of the above initiatives.** Model 2 consists of three features: four tiers of work hours, a child allowance and an income limit for public rental housing applicants. It would benefit the largest number of employed persons (709000) without any stigma attached and prevent them from falling into poverty trap. Also it would effectively reduce the number of poor households in Hong Kong by about 19.4%, second to the EITC in terms of poverty reduction. This model would drop the working poverty rate from 8.4% to 3.7%. The overall poverty rate would drop from.19.6% to 15.8%. It would cost HK$6,315 million[60] per year if the assets test is in place.

8.5.3 **The formal title of WITS should be changed to "Work Incentive Low-Income Family Subsidy".** At present, the term "Transport Subsidy" – an allowance for low earners to cover the cost of transportation between their residence and their work place – has drawn sharp criticism from the public since the assessment of eligibility is based on family income rather than individual income. Therefore, it is advisable to change the title and broaden the objective of this initiative, so that it aims to support those living in poverty with their daily expenses, not only the cost of transportation.

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[60] According to government practice, the estimated take-up rate for WITS is half the number of estimated eligible persons. We make the same assumption in calculating the annual cost of a reformed WITS scheme.

8.5.4. **Revoking the Assets Test. The government should study the feasibility of revoking the assets test for in-work subsidies** for the following three reasons. First, a reformed WITS would set up working hours and income tests for applicants. It is unreasonable to also include an assets test if one of the scheme's objectives is to encourage low-income earners to work. Second, revoking the assets test would simplify application procedures and increase the take-up rate of a reformed WITS. Third, foreign tax credit schemes tend not to have assets test for screening applicants. This makes the application procedure simpler and encourages more eligible families to obtain the tax credit. Therefore it is suggested that the assets test be revoked.

8.5.5. Relaxing the Assets Threshold
Though various tax credit schemes overseas do not have assets test, very few welfare schemes do not require an assets test in Hong Kong. Considering this fact, we recommend adopting a less restrictive assets threshold for applicants for PRH flats so that more low-income working families can benefit.

8.5.6. **The "disregarded earnings" system under the CSSA scheme should be revised.** To provide incentives for people to work, we suggest that if CSSA recipients have satisfied the eligibility criteria of a reformed WITS, they can apply for and save the subsidy in their personal savings accounts. Unless these retained earnings and subsidy exceed the assets limit, and CSSA benefits are terminated, they cannot use them. This scheme would encourage adults to work and pave the way for them to quit the CSSA scheme. So the Government should explore the feasibility of allowing people to retain earned income and our proposed subsidy in a personal savings account, subject to restrictions on immediate use.

According to Government figures, three-member families are the largest group of low-income households receiving CSSA, comprising about 29%[61]. If a three-member family is composed of two working adults and one child, the asset limit would be $49,500[62]. According to Government figures, the average monthly personal income of a low-income worker on CSSA is $5,377[63]. Under our proposed system, a working adult would be able to save up to $2,877 ($5,377 minus the maximum disregarded income of $2,500) per month. If both working adults satisfied an income eligibility for the reformed WITS (Model 2) and work over 144 hours per month, they would receive an additional $3,200 subsidy per month on top of their salary. That is, their combined retained earnings and subsidy would be $5,700 per month. The family would then quit the CSSA scheme in nine months, after acquiring the maximum allowed assets. The proposed scheme would speed up the time when CSSA recipients in the low-income category could quit the CSSA scheme.

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[61] Social Welfare Department, 2010-11
[62] Social Welfare Department, http://www.swd.gov.hk/doc/social-sec/CSSAG0212e.pdf
[63] Social Welfare Department, 2011-12

8.6. Introduction of Simulated EITC in the Long Term

In the long run, the government should introduce an EITC model after experimenting with our proposed reformed WITS, for this model has the strongest impact on overall poverty reduction, at 22.8%. The poverty rate would drop from 19.6% to 15.1% after the EITC was implemented. Its annual cost would be relatively lower than those of WITS Models 2 and 3. Besides, if the tax system is used to deliver subsidies, this can mitigate the stigmatization of recipients and effectively reach the needy, as shown in the high take-up rate of EITC in the U.S. So the government should study how to fine-tune the tax administration to achieve the goal of poverty reduction

8.7. Further Study of Individual Assessment Scheme

Regarding the introduction of a dual assessment scheme, this initiative would have the greatest coverage of low-income workers in Hong Kong (n=2,886,000). However, it is also realized that the initiative would incur the highest expenditure and cover some 340,000 households that are not at risk of poverty. So the family and individual assessment schemes cannot be simply combined for the purpose of poverty reduction. However, if the individual assessment scheme is used as a way to reward low-paid workers and encourage them to find a job or remain in the workforce, it is one option. The government or other policy researchers could study how to set effective eligibility criteria (such as whether or not one requires cross-district transportation) to restrict enrolment of this type of low-paid workers.

Table 8.1: Summary of Performances and Feasibility Outcomes of EITC and Various Models of Reformed WITS Applied to Hong Kong

Measure/ variable		EITC Design	Reformed Work Incentive Transport Subsidy					
			Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
		3-stage EITC: Phase in (<30%; Plateau (30-60%); Phase-out (60-80%). Size of subsidy capped at 10% of equivalised median	Additional work-hour tier; Child allowance; PRH income limit & Dual assessment	Additional work-hour tier; Child allowance & PRH income limit	Additional work-hour tier & Child allowance	Additional work-hour tier & PRH income limit	Additional work-hour tier only	Current scheme
1. Policy idea		Provide work subsidy for low-income families through the present tax system	Provide work subsidy for low earners with a less restrictive criterion to sustain their normal standard of living through WITS	Provide work subsidy for low-income families with a less restrictive criterion to sustain their normal standard of living through WITS	Provide work subsidy for low-income families to sustain their normal standard of living through WITS	Provide work subsidy for low-income families to strengthen work incentive with a less restrictive criterion through WITS	Provide work subsidy for low-income families to strengthen work incentive through WITS	Provide work subsidy for low-income families to cover their transportation cost through WITS
Estimated expenditure	($ million) (100% take up rate)	9,464	15,696	12,630	8,984	9,116	6453	3,490
	($ million) (50% take up rate)		7,848	6,315	4,492	4,558	3,226.5	1,745
Coverage: Household: All		537200	864000	534000	416000	534000	416000	416000
Household income	<80% of equivalised median income	537200	524000	524000	413000	524000	413000	413000
	> 80%of equivalised median income	0	340000	10000	3000	10000	3000	3000
Size of household	1	54500	46000	52000	29000	52000	29000	29000
	2-4	413100	688000	406000	338000	406000	338000	338000
	5+	69700	130000	76000	49000	76000	49000	49000
Person: All		1681300	2886000	1689000	1246000	1689000	1246000	1246000
Age	<15	283200	335000	277000	201000	277000	201000	201000
	15-64	1221200	2305000	1234000	901000	1234000	901000	901000
	65+	177100	246000	178000	144000	178000	144000	144000

Measure/ variable		Reformed Work Incentive Transport Subsidy						
		EITC Design	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
		3-stage EITC: Phase in (<30%; Plateau (30-60%); Phase-out (60-80%). Size of subsidy capped at 10% of equivalised median	Additional work-hour tier; Child allowance; PRH income limit & Dual assessment	Additional work-hour tier; Child allowance & PRH income limit	Additional work-hour tier & Child allowance	Additional work-hour tier & PRH income limit	Additional work-hour tier only	Current scheme
Effect of poverty reduction (%)								
Charge in Working Household Poverty Rate		From 8.4% to 2.8%	From 8.4% to 3.8%	From 8.4% to 3.7%	From 8.4% to 3.7%	From 8.4% to 5.1%	From 8.4% to 5.1%	From 8.4% to 6.5%
Rate of Poverty Reduction: Working household: All		66.0	54.8	56	56	39.2	39.2	22.4
Size of household	1	60.9	-	18.2	18.2	18.2	18.2	-
	2-4	66.3	58.3	58.3	58.3	47.6	47.6	28.7
	5+	66.7	60.9	60.9	60.9	14.3	14.3	3.6
Type of household	Without child	61.0	39.8	43.6	43.6	39.4	39.4	2.2
	With child	69.9	65.5	65.5	65.5	39.4	39.4	37.9
Person living in working household: All		65.1	58	58.4	58.4	39.4	39.4	26.2
Age group	<15	68.6	64.4	64.4	64.4	40.3	40.3	38.8
	15-64	64.1	56.2	57.1	57.1	39.6	39.6	23.4
	65+	63.5	50.8	50.8	50.8	33.1	33.1	11
Effect of poverty reduction (%) % Change in Poverty Rate		From 19.6% to 15.1%	From 19.6% to 15.9%	From 19.6% to 15.8%	From 19.6% to 15.8%	From 19.6% to 17.0%	From 19.6% to 17.0%	From 19.6% to 18.1%
Rate of Poverty Reduction: Households : All		22.8	18.9	19.4	19.4	13.6	13.6	7.7

Measure/ variable		Reformed Work Incentive Transport Subsidy						
		EITC Design	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
		3-stage EITC: Phase in (<30%; Plateau (30-60%); Phase-out (60-80%). Size of subsidy capped at 10% of equivalised median	Additional work-hour tier; Child allowance; PRH income limit & Dual assessment	Additional work-hour tier; Child allowance & PRH income limit	Additional work-hour tier & Child allowance	Additional work-hour tier & PRH income limit	Additional work-hour tier only	Current scheme
Size of household	1	4.3	-	1.3	1.3	1.3	1.3	0
	2-4	29.4	25.9	25.9	25.9	21.1	21.1	12.8
	5+	56.4	51.5	51.5	51.5	12.1	12.1	3
Person living in household: All		33.3	29.7	29.9	29.9	20.2	20.2	13.4
Age group	<15	51.5	48.2	48.2	48.2	30.2	30.2	29.1
	15-64	40.3	35.4	35.9	35.9	24.9	24.9	14.7
	65+	9.4	7.5	7.5	7.5	4.9	4.9	1.6
Complexity of administrative arrangement		Huge: 1. if the current administration is used to assess applicants and deliver subsidy; 2. No precedent to use Inland Revenue to deliver subsidy for the purpose of poverty reduction	Moderately huge: Introduction of child allowance and dual assessment scheme may involve tremendous change on present WITS	Moderate: Introduction of child allowance may involve moderate change on assessment mechanism of WITS	Moderate: Introduction of child allowance may involve moderate change on assessment mechanism of WITS	Small: Introduce additional work-hour tiers and less stringent income limit based on current WITS	Small: Introduce additional work-hour tiers based on current WITS	Nil
1a. Financial Implication: Percentage Share of Additional expenditure in fiscal surplus [2] (%)	Upper Limit (Without Asset Test, 100% Take-up Rate)	10.5 [1]	21.4	16	9.6	9.9	5.2	0
1b. Financial Implication: Percentage Share of	(With Asset Test, 50% of Take-up Rate)	5.25	10.7	8.0	4.8	4.9	2.6	0

Measure/ variable		Reformed Work Incentive Transport Subsidy						
		EITC Design	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
		3-stage EITC: Phase in (<30%; Plateau (30-60%); Phase-out (60-80%). Size of subsidy capped at 10% of equivalised median	Additional work-hour tier; Child allowance; PRH income limit & Dual assessment	Additional work-hour tier; Child allowance & PRH income limit	Additional work-hour tier & Child allowance	Additional work-hour tier & PRH income limit	Additional work-hour tier only	Current scheme
Additional expenditure in fiscal surplus (%)								
2. Financial Implication: Percentage Share of fiscal surplus (%)	(With Asset Test, 50% of Take-up Rate)	8.3	13.8	11.1	7.9	8.0	5.7	3.1
3a. Financial Implication: Proposed Scheme's Expense as Total Percentage of Social Welfare Expenditure[3]	(Without Asset Test, 100% Take-up Rate)	21.7	36.0	29.0	20.6	20.9	14.8	8.0
3b. Financial Implication: Proposed Scheme's Expense as Total Percentage of Social Welfare Expenditure	(With Asset Test, 50% of Take-up Rate)	10.9	18.0	14.5	10.3	10.4	7.4	4.0

Note: 1: Assume that the Inland Revenue administers this proposed programme

2: Fiscal Surplus refers to the Recent 5-Year Average Fiscal Surplus at 56,948 (HK$M)

3: Revised Estimated Social Welfare Expenditure is HK$43620 million in 2011/2012. (http://www.budget.gov.hk/2012/eng/pdf/e_appendices_b.pdf)

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